DEPARTMENT OF APPLIED STATISTICS,
UNIVERSITY COLLEGE, UNIVERSITY OF LONDON

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STUDIES IN NATIONAL DETERIORATION. VIII.

A FOURTH STUDY OF THE STATISTICS OF PULMONARY TUBERCULOSIS: THE MORTALITY OF THE TUBERCULOUS: SANATORIUM AND TUBERCULIN TREATMENT.

BASED ON (i) DR LAWRASON BROWN'S ADIRONDACK SANITARIUM DATA. (ii) DATA FROM TWO SCOTTISH SANATORIA. (iii) DR AUSTIN FLINT'S DATA FROM PRE-SANATORIUM DAYS.

BY
W. PALIN ELDERTON, F.I.A.
AND
SIDNEY J. PERRY, A.I.A.

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PREFATORY NOTE.

Dr Lawrason Brown being in England two years ago, most kindly visited the Biometric Laboratory, and as a result of a conversation with its Director agreed to place at his disposal schedules covering the later history of 3000 sanatorium treated tuberculous patients. I cannot sufficiently acknowledge my appreciation of Dr Lawrason Brown's confidence that his data would be treated wholly without bias, and investigated purely from the scientific standpoint with a view to ascertaining the relative value of modern methods of treatment. I pressed upon Dr Lawrason Brown the extreme desirability of obtaining for America, if possible, pre-sanatorium records of the mortality of the tuberculous. He fully realised the importance of such material, and ultimately obtained and forwarded to the Laboratory details of a considerable number of cases from the case-books of the late Dr Austin Flint—the cases dating from 1845—1870. Dr Lawrason Brown on the basis of Dr Flint's records kindly classified as far as possible these cases. Every one interested in the subject of pulmonary tuberculosis will appreciate the courtesy of Dr Austin Flint, Jr., who thus placed his grandfather's records at Dr Brown's disposal, and of Dr Trudeau who did likewise with the records of the Adirondack Cottage Sanitarium. An examination of Dr Flint's data—probably quite the best that were available from pre-sanatorium days in America, for Dr Flint was a noteworthy specialist of his day—indicates how difficult is the problem of fairly comparing sanatorium and pre-sanatorium treatments. The Scottish data were provided by Dr Edward E. Prest and Dr Guy, the latter of whom I have especially to thank for detailed information. The whole material was placed by me in the hands of Mr Palin Elderton, who in conjunction with Mr Sidney J. Perry has drawn up the Report now printed. I naturally left them perfect freedom to reach what conclusions the material indicated to trained actuarial minds.

I think the reader who peruses carefully their pages will agree with me, that what is above all things needed to-day in view of the expenditure of millions of pounds under the National Insurance Act—on the practically universal treatment of phthisical patients, by what will in all probability develop into a routine of tuberculin dispensaries and sanatoria—is the immediate and preliminary expenditure of a few thousand pounds on a more thorough study of the origins of phthisis and of the relative value of existing and alternative treatments.

KARL PEARSON.

The Mortality of the Tuberculous.

I. Dr Lawrason Brown's Adirondack Sanitarium Data.

II. Data from two Scottish Sanatoria.

III. Pre-Sanatorium Data.

By W. PALIN ELDERTON, F.I.A. and SIDNEY J. PERRY, A.I.A.

Introductory.

In a recent investigation we made an attempt to measure the mortality of the tuberculous after sanatorium treatment and the present paper supplements the information then given by the study of other data which have reached us from various sanatoria, and relate not only to ordinary sanatorium treatment but to cases which have also been treated by tuberculin.

In our previous investigation we pointed out that the mortality of those who have undergone treatment could be accurately compared with the mortality of the general population, even if only a few years' observations were available, by calculating the number of deaths that we should have expected to occur with the actual number that took place. In a similar way the mortality among two classes, such as those who undergo ordinary sanatorium treatment and those who are treated by tuberculin, can be compared by seeing in which class the actual number of deaths exceeds the expected number to the greater extent. These methods, as we pointed out, are those employed by actuaries in their practical work and the justification of them is almost obvious.

Data furnished.

The most important series of cases of which particulars have been given to us relates to cases treated at the Adirondack Cottage Sanitarium. These have been placed at our disposal by Dr Lawrason Brown, who had already with the late E. G. Pope investigated the mortality to some extent, and had also published particulars of the earlier cases that had been treated in the Sanitarium by tuberculin. These writers were, we think, the first who had really attacked the problem of the mortality of the tuberculous by a satisfactory method, and, although some of the details of the former investigation are perhaps a little open to criticism, it is only fair to repeat that the present paper is merely an explanation and an enlargement of the work that they had already started. The differences between our investigation and that which had already been made are that (1) we have had about 750 more cases on

which to work, (2) we have gone more fully into the investigation by making greater allowance for the ages of individual cases, instead of using an average age for all the cases which came under observation, and (3) we have investigated a few additional points.

We also had before us the data given in detail in Dr E. E. Prest's reports to the Ayrshire Sanatorium. These reports are excellent in that they give very full information, including the age of each patient, particulars of the time during which they were treated and the condition at the present time. The Sanatorium was however started only a few years ago so that the data do not relate to so many years as were available in the case of the Adirondack Cottage Sanitarium.

Another series of data was given to us by Dr Guy and relate to another Scottish Sanatorium (Bridge of Weir) but here difficulty arose owing to no attempt having been made to trace the cases until some years after they had been discharged.

In addition to these Sanatorium experiences Dr Lawrason Brown obtained information about the patients of Dr Austin Flint who were treated in America before the days of Sanatoria.

In all our work we have used the English Life Table (No. 6) as the basis for making our estimate of the mortality that would have been expected. This is the table we adopted in our previous investigation. It is perhaps not altogether satisfactory for American lives, but no suitable American Mortality Table appears to be available, and, even if such a table were constructed, its use in the present instance would have to be supplemented by the calculation on the basis of the English Life Table (No. 6) or we should be unable to compare the mortality of the American patients with that of the corresponding English and Scottish patients.

Adirondack Cottage Sanitarium Data.

In the investigation of this experience we have dealt with the following points :—

A. *For all the patients treated*
   (i) The mortality since admission.
   (ii) The mortality since discharge.

B. *With regard to a selected portion of the experience*
   (i) The mortality since admission.
   (ii) The mortality of those patients who were known to have had tubercle bacilli in sputum.
   (iii) The mortality of those patients who were known to have had haemoptysis.
   (iv) The mortality of those patients one or both of whose parents had consumption.
   (v) The mortality of those patients who were treated with tuberculin.

Before discussing these separate investigations in detail we may point out that throughout our work we have dealt with male and female lives separately, and have

subdivided the material available into three classes on admission and three classes on discharge. The classes on admission are (1) incipient, (2) advanced and (3) far-advanced, these terms being defined as follows (see page 5 of our previous Paper).

Incipient (favourable). Slight initial lesion in the form of infiltration limited to the apex or a small part of one lobe. No tuberculous complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight).

Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours, especially after rest.

Expectoration usually small in amount or absent.

Tubercle bacilli may be present or absent.

Moderately advanced. No marked impairment of function either local or constitutional.

Localized consolidation moderate in extent with little or no evidence of destruction of tissue;

Or, disseminated fibroid deposits.

No serious complications (tuberculous).

Far advanced. Marked impairment of function, local and constitutional.

Localized consolidation intense;

Or, disseminated areas softening;

Or, serious complications (tuberculous).

The reader may be reminded that the incipient class includes Turban stage I, the moderately advanced class includes Turban stages I, II and III but chiefly II and the far-advanced includes Turban stages I, II, and III but chiefly III.

The classes on discharge are also given on page 5 of our previous Paper but for convenience of reference we may explain that they are defined as follows:—

Apparently cured. All constitutional symptoms and expectoration with bacilli absent for a period of three months; the physical signs to be those of a healed lesion.

Arrested. Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationary or retrogressive; the foregoing conditions to have existed for at least two months.

Active. Includes what were described as "Progressive" and "Improved" on page 5 of our former paper, namely "Progressive." All essential symptoms and signs unabated or increased and "Improved." Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.

There are one or two general points which may also be mentioned before the detailed investigation is discussed.

The patients were drawn mainly from the North Eastern States and from the State of New York especially. There seems so far as we can tell to have been no special selection with regard to nationality, many nationalities being represented among the patients but the Americans naturally predominating. There were few, if any, coloured people.

The following table is interesting in showing the number of cases that have been lost sight of out of a total of 3000.

TABLE A. *Cases lost sight of.* (*Adirondack.*)

Class	Males			Females			Total
	Incipient	Advanced	Far advanced	Incipient	Advanced	Far advanced	
First thousand	13	47	11	23	53	10	157
Second thousand ...	3	6	—	10	8	—	27
Third thousand	—	—	—	—	—	—	—
Total.....	16	53	11	33	61	10	184

Several among the first thousand patients were never heard from after they left the Sanitarium. Apparently it was not until some years after the Sanitarium had started that a serious attempt was made to keep in touch with patients after discharge. Subsequently however nearly every case was traced and the figures in the above table show how easy it is to keep in touch with patients after discharge if systematic efforts are made to do so. A few cases have been excluded from our investigation either because the patient was found after he had been in the Sanitarium for a short time to be suffering from some disease other than tuberculosis, or because the age of the patient was unknown. There were only 21 in the latter class while the former class was still smaller.

A (i) The information with which we were furnished related to the years from 1885 to 1911, and in the hope of being able to form some opinion as to whether the treatment had of recent years become more successful than it had been in the earlier history of the Sanitarium, we divided the experience into three parts, the first relating to the first thousand cases admitted to the Sanitarium, that is, from 1885 to 1897; the second thousand from December 1897 to 1903; and the third thousand from December 1903 to July 1909.

The results of these investigations are given in Tables B and i to xviii* and are abstracted in a convenient form on the inset table with the aid of which comparisons can be conveniently made, if the reader bears in mind the limitations and criticisms of the results mentioned throughout this paper.

It will be observed

(1) that the mortality among the incipient is far lighter than among the more advanced cases,

(2) that in incipient cases the mortality of the females is lighter than that of the males, in advanced cases there is little difference, the female mortality being

* Full tables are given for various age groups in the Appendix numbered i to lxvi and abstracts of these tables are shown in the text. The Appendix tables are distinguished by small Roman numbers. The "inset table" faces page 24 and will enable the reader to follow the argument of the paper with a minimum of reference to the other tables.

TABLE B. *Mortality from date of Admission.* (*Adirondack.*)

Incipient cases—Males

No. of years since Admission	1st thousand		2nd thousand		3rd thousand	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·18	2	·45	—	·63
1	2	·42	2	1·02	7	1·40
2	1	·42	5	1·06	5	1·14
3	3	·42	5	1·07	3	·97
4	4	·43	6	1·07	3	·76
5	1	·39	1	1·08	1	·48
6	5	·41	2	1·12	—	·18
7	3	·39	1	1·04	—	·03
8	4	·38	1	·85	—	—
9	2	·36	1	·68	—	—
10	—	·35	3	·41	—	—
11	—	·37	—	·25	—	—
12	—	·39	—	·07	—	—
13	—	·34	—	—	—	—
14	—	·32	—	—	—	—
15	—	·23	—	—	—	—
16	—	·22	—	—	—	—
17	—	·20	—	—	—	—
18	—	·05	—	—	—	—
19	—	·04	—	—	—	—
20 & over	—	·13	—	—	—	—
Doubtful	5	—	1	—	—	—
Total	30	6·44	30	10·17	19	5·59

Incipient cases—Females

No. of years since Admission	1st thousand		2nd thousand		3rd thousand	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·28	—	·40	—	·64
1	2	·61	3	·94	1	1·26
2	1	·61	3	·94	2	1·03
3	4	·62	2	·96	1	·85
4	2	·62	4	1·00	1	·67
5	3	·63	5	1·02	—	·44
6	1	·59	3	1·01	—	·16
7	—	·60	1	·93	—	·01
8	—	·62	1	·74	—	—
9	1	·65	—	·55	—	—
10	1	·66	1	·34	—	—
11	2	·67	—	·22	—	—
12	—	·68	—	·05	—	—
13	—	·63	—	—	—	—
14	—	·52	—	—	—	—
15	1	·43	—	—	—	—
16	—	·32	—	—	—	—
17	1	·29	—	—	—	—
18	—	·20	—	—	—	—
19	—	·16	—	—	—	—
20 & over	—	·13	—	—	—	—
Doubtful	10	—	—	—	—	—
Total	29	10·52	23	9·10	5	5·06

Advanced cases—Males

0	5	·84	8	1·13	—	1·15
1	34	1·83	36	2·24	18	2·19
2	33	1·58	30	2·08	11	1·74
3	19	1·27	22	1·91	12	1·32
4	14	1·09	24	1·82	13	·95
5	11	·95	16	1·66	4	·54
6	9	·88	16	1·58	—	·26
7	5	·72	7	1·30	—	·02
8	5	·73	5	1·04	—	·01
9	3	·70	3	·85	—	—
10	1	·70	4	·58	—	—
11	4	·64	—	·29	—	—
12	3	·61	—	·05	—	—
13	3	·57	—	—	—	—
14	1	·50	—	—	—	—
15	—	·40	—	—	—	—
16	—	·31	—	—	—	—
17	1	·28	—	—	—	—
18	—	·26	—	—	—	—
19	1	·22	—	—	—	—
20 & over	1	·25	—	—	—	—
Doubtful	56	—	3	—	—	—
Total	209	15·33	174	16·53	58	8·18

Advanced cases—Females

0	4	·75	—	·96	1	·88
1	35	1·54	36	1·88	11	1·51
2	24	1·31	28	1·75	12	1·16
3	14	1·11	24	1·63	11	·86
4	8	1·01	17	1·51	6	·51
5	8	·99	15	1·48	1	·31
6	5	·94	9	1·42	—	·09
7	11	·93	10	1·26	—	·02
8	6	·82	6	·96	—	—
9	2	·79	3	·64	—	—
10	1	·77	2	·45	—	—
11	2	·79	—	·20	—	—
12	1	·77	—	·10	—	—
13	5	·73	—	—	—	—
14	2	·59	—	—	—	—
15	1	·48	—	—	—	—
16	—	·39	—	—	—	—
17	1	·38	—	—	—	—
18	—	·31	—	—	—	—
19	—	·31	—	—	—	—
20 & over	1	·26	—	—	—	—
Doubtful	51	—	4	—	—	—
Total	182	15·97	154	14·24	42	5·34

Far advanced cases—Males

0	4	·24	—	·07	—	·05
1	34	·59	20	·29	1	·10
2	10	·31	8	·14	1	·05
3	10	·22	2	·08	—	·02
4	1	·10	—	·06	1	·02
5	1	·09	1	·08	—	—
6	—	·08	—	·07	—	—
7	1	·10	2	·06	—	—
8	—	·08	—	·04	—	—
9	—	·09	1	·04	—	—
10	2	·09	1	·03	—	—
11	—	·06	—	·02	—	—
12	—	·06	—	·02	—	—
13	—	·05	—	—	—	—
14	—	·03	—	—	—	—
15	—	·03	—	—	—	—
16	—	·03	—	—	—	—
17	—	·02	—	—	—	—
18	—	·01	—	—	—	—
19	—	·01	—	—	—	—
20 & over	—	·02	—	—	—	—
Doubtful	26	—	1	—	—	—
Total	89	2·31	36	1·00	3	·24

Far advanced cases—Females

0	6	·20	1	·07	—	·03
1	34	·49	12	·19	1	·04
2	9	·26	7	·13	—	·03
3	9	·18	3	·08	—	·01
4	4	·12	2	·05	—	·01
5	1	·08	2	·04	—	—
6	—	·07	1	·02	—	—
7	4	·07	—	·01	—	—
8	—	·03	—	·01	—	—
9	1	·03	—	—	—	—
10	—	·02	—	—	—	—
11	1	·02	—	—	—	—
12	—	·02	—	—	—	—
13	—	·02	—	—	—	—
14	—	·02	—	—	—	—
Doubtful	13	—	1	—	—	—
Total	82	1·63	29	·60	1	·12

TABLE C. *Mortality from date of Discharge.* (*Adirondack.*)

Apparently cured cases—Males

No. of years since Discharge	1st thousand		2nd thousand		3rd thousand	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	1	·38	1	·88	1	·63
1	—	·39	3	·93	—	·48
2	1	·42	2	·93	—	·36
3	1	·42	3	·96	1	·29
4	3	·41	—	·99	—	·17
5	1	·40	3	1·05	—	·05
6	1	·44	2	1·01	—	·01
7	2	·44	2	·81	—	—
8	3	·44	—	·65	—	—
9	1	·41	2	·48	—	—
10	1	·36	—	·26	—	—
11	—	·37	—	·01	—	—
12	—	·31	—	—	—	—
13	—	·24	—	—	—	—
14	—	·17	—	—	—	—
15	—	·17	—	—	—	—
16	—	·15	—	—	—	—
17	—	·12	—	—	—	—
18	—	·10	—	—	—	—
19	1	·06	—	—	—	—
20 & over	—	·09	—	—	—	—
Doubtful	2	—	—	—	—	—
Total	18	6·29	18	8·96	2	1·99

Apparently cured cases—Females

No. of years since Discharge	1st thousand		2nd thousand		3rd thousand	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	4	·66	2	·77	—	·62
1	2	·66	—	·77	—	·51
2	4	·65	1	·80	—	·46
3	1	·67	—	85	—	·40
4	2	·68	5	·89	—	·27
5	1	·67	2	·87	—	·13
6	—	·69	2	·80	—	·01
7	2	·71	—	·65	—	—
8	1	·70	1	·49	—	—
9	—	·73	—	·35	—	—
10	—	·77	—	·18	—	—
11	—	·78	—	·03	—	—
12	—	·70	—	—	—	—
13	—	·60	—	—	—	—
14	1	·49	—	—	—	—
15	1	·38	—	—	—	—
16	—	·31	—	—	—	—
17	—	·21	—	—	—	—
18	—	·17	—	—	—	—
19	—	·07	—	—	—	—
20 & over	—	·09	—	—	—	—
Doubtful	8	—	—	—	—	—
Total	27	11·39	13	7·45	—	2·40

Arrested cases—Males

0	9	·91	10	1·71	4	2·30
1	11	·86	19	1·72	5	1·95
2	11	·77	16	1·67	14	1·63
3	9	·64	20	1·61	8	1·21
4	8	·57	13	1·51	5	·78
5	2	·50	11	1·42	—	·32
6	4	·50	4	1·19	—	·02
7	3	·45	3	·95	—	—
8	2	·41	5	·74	—	—
9	2	·41	5	·42	—	—
10	1	·40	—	·18	—	—
11	1	·41	—	·03	—	—
12	2	·35	—	—	—	—
13	—	·27	—	—	—	—
14	—	·20	—	—	—	—
15	—	·14	—	—	—	—
16	—	·11	—	—	—	—
17	—	·07	—	—	—	—
18	1	·06	—	—	—	—
19	—	·04	—	—	—	—
20 & over	—	·06	—	—	—	—
Doubtful	29	—	1	—	—	—
Total	95	8·13	107	13·15	36	8·21

Arrested cases—Females

0	9	·80	7	1·36	—	1·47
1	7	·76	16	1·40	5	1·22
2	11	·75	19	1·33	4	·94
3	1	·71	15	1·25	4	·68
4	11	·72	7	1·20	2	·41
5	5	·65	7	1·17	—	·11
6	6	·60	8	1·00	—	·01
7	2	·56	6	·74	—	—
8	1	·56	—	·52	—	—
9	1	·55	2	·31	—	—
10	2	·56	—	·18	—	—
11	5	·55	—	·07	—	—
12	—	·46	—	·01	—	—
13	1	·40	—	—	—	—
14	—	·30	—	—	—	—
15	—	·25	—	—	—	—
16	1	·24	—	—	—	—
17	—	·17	—	—	—	—
18	—	·18	—	—	—	—
19	1	·06	—	—	—	—
20 & over	—	·03	—	—	—	—
Doubtful	15	—	1	—	—	—
Total	79	9·86	88	10·54	15	4·84

Active cases—Males

0	70	1·57	47	1·03	22	·82
1	28	·98	22	·66	7	·55
2	12	·71	9	·49	6	·35
3	9	·59	9	·44	5	·22
4	5	·49	4	·36	1	·09
5	6	·45	4	·32	—	·03
6	7	·39	3	·24	—	·02
7	2	·31	1	·21	—	—
8	1	·29	1	·16	—	—
9	1	·30	1	·14	—	—
10	2	·30	—	·10	—	—
11	—	·27	—	·07	—	—
12	1	·26	—	—	—	—
13	1	·27	—	—	—	—
14	—	·27	—	—	—	—
15	—	·25	—	—	—	—
16	1	·23	—	—	—	—
17	—	·13	—	—	—	—
18	—	·10	—	—	—	—
19	—	·05	—	—	—	—
20 & over	—	·06	—	—	—	—
Doubtful	56	—	3	—	—	—
Total	202	8·27	104	4·22	41	2·08

Active cases—Females

0	67	1·12	42	·95	13	·75
1	21	·59	23	·73	11	·55
2	10	·40	10	·59	6	·33
3	7	·31	8	·53	1	·14
4	1	·25	7	·51	1	·05
5	3	·27	4	·46	—	·01
6	6	·25	2	·37	—	—
7	—	·18	2	·27	—	—
8	2	·19	1	·14	—	—
9	—	·18	—	·10	—	—
10	3	·19	—	·09	—	—
11	—	·17	—	·03	—	—
12	2	·15	—	—	—	—
13	—	·10	—	—	—	—
14	—	·11	—	—	—	—
15	—	·09	—	—	—	—
16	—	·09	—	—	—	—
17	—	·09	—	—	—	—
18	—	·07	—	—	—	—
19	—	·03	—	—	—	—
20 & over	—	·03	—	—	—	—
Doubtful	50	—	4	—	—	—
Total	172	4·86	103	4·77	32	1·83

slightly the heavier in the later experience, and in far advanced cases the mortality of the female is the heavier, and

(3) that generally speaking the mortality is lighter as we come to the more recent admissions.

The first result is to be expected: the second is probably due to two causes (*a*) that many women are able to lead more sheltered lives*; and (*b*) that women are admitted on the average in an earlier stage of the disease. We find that among the last 2,250 cases 55 °/₀ of the males with the disease in the incipient stage had T. B. in the sputum but only 38 °/₀ of the females, while 90 °/₀ of the males with advanced disease had T. B. in the sputum as compared with 80 °/₀ of the females (see B (ii)).

The cause of the last result (3) above may be either

(*a*) that in recent years patients were sent for treatment when their disease was in an earlier stage;

(*b*) that the heavier mortality comes not in the first few years after a patient goes to a Sanatorium but after some years have elapsed;

(*c*) that the same classes of patients etc. go to the Sanatorium but that the treatment has been more successful;

(*d*) that possibly a better class of patient is now taken, or more general prosperity or a higher standard of living has enabled patients to look better after themselves on discharge;

or of course there may be a combination of two or more of these and other possible explanations.

Taking however the first one of them the following table is worth examination:

TABLE D. *Distribution of cases on admission.* (*Adirondack.*)

Dates of admission	Males			Females			Omitted	Total
	Incipient	Advanced	Far advanced	Incipient	Advanced	Far advanced		
1885 to Dec. 1897	77	299	107	123	291	94	9	1000
Dec. 1897 to Dec. 1903	144	313	40	157	305	30	11	1000
Dec. 1903 to July 1909	222	298	8	206	247	5	14	1000

This table shows that there was a gradual tendency to exclude far advanced cases and to accept cases at the early stages of the disease. Whether this tendency resulted from the action of the Sanitarium itself or because local Doctors sent their cases earlier is immaterial from our present point of view, as either course would, we think, have resulted in a lighter mortality in all classes. In view of the distribution of the cases in the first and third thousands between the incipient, advanced and far-advanced classes it is highly probable that the average case included in the incipient class among the first thousand was nearer to the advanced class than the

* Cp. E. E. Prest, Report to Ayrshire Sanatorium for 1911.

average case of the incipient cases among the third thousand. In the same way if the Sanitarium authorities have recently admitted fewer far advanced cases than in the past it is probable that the exclusion has extended to those of the advanced group which would be very near the "far advanced" border; the effect being that in the advanced class as well as in the incipient class there would be a tendency for the group as a whole to show a lighter mortality in the third thousand than in the first thousand. Presumably also the far advanced cases in the third thousand were highly selected as compared with the corresponding group in the first thousand.

Another check, which, however, we do not consider altogether satisfactory, was made by calculating, in those cases where the information was available, the average duration of the cases from the time when the disease was estimated to have started up to the time when the patient was admitted to the Sanitarium. There was comparatively little difference between the estimates in the first two thousands but between the second and third there was a marked decrease in the time from onset to admission, the duration in question being reduced to, roughly, one-half in the case of males and to two-thirds in the case of females. We do not lay any great stress upon this check but merely record it as bearing slightly upon the other information.

Turning now to the second possible explanation of the result we think that it must be discarded. An examination of Tables B and C and Table G on p. 13 shows that the mortality is heaviest for the few years following admission and then tends to become lighter. It seems that this might imply that the disease sometimes takes a chronic form which does not greatly increase the mortality, or that the patients become absolutely cured after a number of years and are no more likely to re-contract the disease than the general population; whether either or both of these explanations or some other is correct is however a matter for subsequent investigation.

The third explanation is that the treatment of the cases has improved. From a statistical point of view the arguments in favour are as follows;

(1) The mortality among each class of case has become lighter in each successive thousand cases. The one exception is the male incipient cases where the mortality among the third thousand appears from the inset table to be heavier than among the second thousand. We attach no importance to this exception; it is due to the observations on the second thousand cases having extended to a greater number of years after admission than the observations on the third thousand; if we use the observations only for the first five years since admission in each case the ratios would have been 4·3 for the second thousand and 3·7 for the third, instead of 2·9 and 3·4 respectively. It will be noticed that the mortality of the female incipient cases is not more than that of the English Life Table (No. 6); the number of deaths expected is however small and too much weight must not be put on this one result.

(2) If, as we have already indicated, the mortality gets lighter after a patient has left the Sanitarium for some years, the third thousand should appear to have the worst mortality judged merely on the inset table because it would refer only to

the early years after admission. Consequently any improvement is really greater than it appears from the table.

On the other hand it is only right to say that any advance in treatment is obscured by the different selection of cases which has most certainly taken place. The difficulty in coming to any definite conclusion is due to the impossibility of telling whether the selection of cases has led to the inclusion of a number of persons among the incipient class who would have recovered if they had had no Sanitarium treatment. If there is a fair number of such people it is not very surprising that the mortality among incipient cases is not much heavier than that of a general population which of course includes all those members of the community who are suffering from consumption in its advanced stages or are on their death-beds from other diseases.

The fourth explanation that we have suggested is an alteration in the class of patient, for which we have no evidence, or a general improvement in conditions. In England the mortality of the country has improved at the ages with which we are concerned in the present investigation and the use of the recent English Life Table (No. 6) imposes a more severe test, therefore, on the first and second than on the third thousand cases. The difference would not however be great; and the absence of suitable American census records makes it impossible to say how far American data are affected by such considerations.

A (ii). Tables C and xix to xxxvi give the mortality that has been experienced among the patients whose disease was described as apparently cured, arrested, and active, when they were discharged.

Here also there seems to have been a selection going on (see Table E) as it will be noticed that although there were more incipient cases among the third thousand there were fewer cases that were described as "apparently cured" than in the second thousand. The explanation of this is we think that the Sanitarium authorities either adopted a more stringent view of what they meant by "apparently cured" or were better judges of which cases should be so described. The effect from a statistical point of view is that the mortality of the "apparently cured" cases is about the same as that of the English Life Table (No. 6). Whether we regard this as improvement in treatment or knowledge we must set off against it the fact that a smaller proportion of cases was described as apparently cured.

TABLE E. *Distribution of cases on discharge.* (*Adirondack.*)

Date of admission	Males			Females		
	Apparently cured	Arrested	Active	Apparently cured	Arrested	Active
1885 to Dec. 1897	54	221	126	107	123	186
Dec. 1897 to Dec. 1903	113	226	129	125	211	149
Dec. 1903 to July 1909	95	301	100	92	221	122

It is well worth while in this connection to compare Table E with Table D. In the third thousand there were 222 males and 206 females with incipient phthisis but only 95 and 92 cases out of these groups and the advanced cases were described as apparently cured. In the first thousand there were 77 male and 123 female incipient cases and 54 and 107 apparently cured. Clearly if "curing" is to be the test of treatment there is no advance and we must, in fairness, set this off against the lighter mortality with which it obviously has no small connection.

The mortality after discharge has possibly been lightened somewhat by the 'selection' of cases on admission referred to in § A (i).

B (i). *The result of an investigation of a selected portion of the data.*

Among the first 750 cases certain particulars were not available and practically all the cases that had been lost sight of, or in which the year of death was unknown, arose among these earlier cases. In the circumstances we decided to exclude the first 750 cases and work on the remainder of the data with the view of making an investigation of some special points which appeared to be of interest. In order to have a basis of comparison for these subsequent investigations we first worked out the mortality from the date of admission for all the 2250 cases. The results are given in Tables F and xxxvii to xlii and an abstract of the results is shown in the inset Table.

TABLE F. *Mortality from date of Admission.* (*Adirondack "Special."*)

Incipient cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	2	1·23	—	1·19
1	9	2·53	5	2·40
2	10	2·31	6	2·19
3	9	2·13	6	2·01
4	11	1·96	6	1·85
5	5	1·70	7	1·62
6	5	1·39	3	1·33
7	2	1·17	1	1·10
8	5	·92	1	·88
9	1	·74	—	·72
10	3	·47	2	·50
11	—	·30	1	·39
12	—	·15	—	·21
13	—	·02	—	·11
14	—	—	—	·01
Total	62	17·02	38	16·51

Advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	8	2·45	1	1·83
1	67	4·90	56	3·71
2	50	4·16	46	3·17
3	39	3·51	40	2·73
4	40	3·02	26	2·27
5	28	2·43	22	1·98
6	19	2·00	9	1·69
7	8	1·47	14	1·48
8	5	1·19	8	1·13
9	3	·99	3	·80
10	5	·74	3	·63
11	—	·38	1	·38
12	2	·15	1	·28
13	1	·07	—	·09
14	—	·01	—	—
Total	275	27·47	230	22·17

Far advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	1	·24	1	·13
1	31	·49	18	·28
2	12	·23	9	·18
3	3	·11	4	·11
4	2	·08	4	·08
5	1	·06	2	·04
6	—	·05	1	·02
7	2	·06	—	·01
8	—	·04	—	·01
9	1	·04	—	—
10	1	·03	—	—
11	—	·02	—	—
12	—	·02	—	—
Total	54	1·47	39	·86

It will be noticed from the tables that the mortality of the incipient and advanced cases for both males and females is proportionately far heavier at the earlier than at the later ages when we use the ratios given in the inset table as the criterion. It is interesting to notice that the mortality of the male incipient cases

is actually, as well as proportionately, heavier at the younger ages; in fact, the mortality in age group under 23, even in this incipient class, is the same as that at age 63 of the general population; the phthisis has as it were, for the time being, added 40 years to the age of the person attacked. The addition to the age decreases as the age increases; in the 28—32 group it is 19 years; and for cases aged 33 and over the disease only adds seven or eight years to the patient's age. In the female incipient cases the addition is about 22 years up to age 33 and about seven years afterwards. These figures are inserted to give the reader some rough idea of the incidence of the mortality at various ages.

It is also interesting to see how the mortality varies as the duration after admission increases and Table G brings out this point—see especially the "advanced" class. The table somewhat understates the real diminution because as we have already seen the mortality is lower for the recent admissions than for the early admissions (see p. 9), and the longer durations can only relate to the latter.

TABLE G. *Mortality according to duration since Admission. (Adirondack.)*

Class	Number of years since Admission								
	0—3			4—7			8 and over		
	Actual No. of Deaths	Expected No. of Deaths	Ratio	Actual No. of Deaths	Expected No. of Deaths	Ratio	Actual No. of Deaths	Expected No. of Deaths	Ratio
Incipient—									
Males	30	8·2	3·6	23	6·2	3·7	9	2·6	3·5
Females	17	7·8	2·2	17	5·9	2·8	4	2·8	1·4
Both sexes	47	16·0	2·9	40	12·1	3·3	13	5·4	2·4
Advanced—									
Males	164	15·0	10·9	95	8·9	10·7	16	3·5	4·6
Females	143	11·4	12·5	71	7·4	9·6	16	3·3	4·8
Both sexes	307	26·4	11·6	166	16·3	10·2	32	6·8	4·7
Far advanced—									
Males	47	1·1	43·0	5	·25	20·0	2	·15	13·0
Females	32	·7	46·0	7	·15	47·0	—	·01	—
Both sexes	79	1·8	44·0	12	·4	30·0	2	·16	12·5

The diminution is partly due to the elimination in the first few years of the cases that do not improve; the longer durations contain a large proportion of "apparently cured" cases and also perhaps a large proportion of cases which are described as "arrested" and improve further after discharge.

B (ii). *The Mortality of those patients who were known to have had T. B. in sputum.*

This investigation was made in order to see to what extent the subsequent mortality of these cases was worse than that of the other patients admitted to the Sanitarium. The detailed results are given in Tables H and xliii to xlvi and the

inset shows that among incipient cases with T. B. present in the sputum the mortality was about $4\frac{1}{2}$ times that expected and in the advanced class nearly 12 times. It may be mentioned that there were practically speaking no far advanced cases in which T. B. were not present.

In making our investigation we included all cases in which T. B. were known to have been present in the sputum at any time prior to the date of discharge. Some authorities would, we believe, state that the presence of T. B. in the sputum is the nearest we can get to a definite assurance of the existence of pulmonary tuberculosis and that this should be the basis on which cases of the disease are notified; others accept the latter statement and reject the former, while there are many who would state definitely that the test is open to criticism all round. Clearly unless the medical profession can decide on its definition the statistician cannot make a satisfactory comparison of the results of various sanatoria etc., which adopt different criteria of the presence of the disease. It is clear from our tables that if the presence of T. B. in the sputum is used as a criterion the mortality is worse than if, say, a visit to the Sanatorium were used as the criterion!

TABLE H. *T. B. known to have been present in sputum.* (*Adirondack.*)

Incipient cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	1	·69	—	·45
1	7	1·39	3	·89
2	8	1·29	4	·85
3	4	1·13	5	·82
4	7	1·06	6	·71
5	2	·90	3	·61
6	5	·75	—	·43
7	1	·62	—	·37
8	5	·49	—	·31
9	1	·39	—	·29
10	3	·23	2	·23
11	—	·14	1	·18
12	—	·06	—	·11
13	—	·01	—	·05
14	—	—	—	·01
Total	44	9·15	24	6·31

Advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	8	2·17	1	1·44
1	63	4·38	55	2·91
2	49	3·78	45	2·50
3	35	3·21	36	2·13
4	40	2·77	24	1·76
5	28	2·18	22	1·51
6	18	1·79	9	1·21
7	6	1·30	14	1·04
8	4	1·02	7	·77
9	3	·84	3	·54
10	5	·58	2	·43
11	—	·28	1	·26
12	2	·12	1	·19
13	1	·07	—	·08
14	—	·01	—	—
Total	262	24·50	220	16·77

In making these remarks it must not of course be assumed that we express any opinion as to what criterion should be used; we quite appreciate that there may be many people in the population not having T. B. in the sputum who are suffering from pulmonary tuberculosis in an early stage, but there is a danger from many points of view in basing any conclusion as to treatment unless a definite line is drawn between the tuberculous and non-tuberculous; otherwise one might find some sanatoria showing

wonderful results because a number of patients were treated who were not really suffering from pulmonary tuberculosis, or who had it in so early a stage that they might have recovered without treatment. Such Sanatoria might appear to give better results than other Institutions whose treatment was really far more satisfactory but who only took cases in which T. B. were present in the sputum. If the medical profession could evolve some definite way of distinguishing those suffering from the disease from those who do not suffer from it, this difficulty would be overcome.

The conclusion that the heavier mortality of those having T. B. in the sputum indicates that these cases are in a more advanced stage than those in which T. B. is absent merely refers to each of the two classes as a whole. It must not be taken to imply that we do not appreciate that T. B. may not appear in the sputum prior to discharge and yet a patient may die of pulmonary tuberculosis or that T. B. may often appear quite early and yet the case may never go beyond a comparatively early stage of the disease. Our remarks merely refer to the average mortality of the classes under consideration; we are not dealing with isolated cases.

B (iii). *The mortality of those patients who were known to have had haemoptysis.*

We also made an investigation into this mortality experience (see Tables J and xlix to lii) and it will be observed from the inset table that as a whole the mortality among the incipient cases which had had haemoptysis was considerably heavier than among the cases who had not had it, but in the advanced cases the excess was less. Haemoptysis seems to increase the mortality in the case of male lives and decrease it

TABLE J. *Haemoptysis known to have occurred. (Adirondack.)*

Incipient cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·49	—	·34
1	4	1·01	1	·69
2	5	·96	1	·64
3	6	·88	2	·62
4	7	·82	1	·58
5	5	·67	5	·54
6	3	·55	—	·42
7	1	·46	—	·39
8	1	·36	1	·31
9	1	·31	—	·22
10	3	·20	1	·18
11	—	·12	—	·13
12	—	·07	—	·04
13	—	·01	—	·02
Total	36	6·91	12	5·12

Advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	4	1·15	—	·70
1	40	2·32	33	1·42
2	24	1·91	17	1·19
3	22	1·64	13	1·06
4	25	1·36	9	·93
5	11	1·04	5	·86
6	5	·85	7	·77
7	3	·68	4	·63
8	1	·51	1	·53
9	1	·44	—	·37
10	1	·31	2	·27
11	1	·15	—	·18
12	—	·07	1	·12
13	1	·04	—	·04
14	—	·01	—	—
Total	139	12·48	92	9·07

Far advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	1	·09	—	·06
1	8	·17	3	·11
2	11	·12	5	·09
3	1	·06	1	·06
4	2	·05	1	·05
5	—	·02	2	·04
6	—	·02	—	·01
7	1	·02	—	·01
8	—	·01	—	·01
9	—	·01	—	—
10	—	·01	—	—
11	—	·02	—	—
12	—	·02	—	—
Total	24	·62	12	·44

in the case of females: the difference in the latter case is however very slight. Our investigation was into cases of certain haemoptysis, "streaked" cases were excluded.

B (iv). *The mortality of those patients one or both of whose parents had consumption.*

From the information in Tables K and liii to lviii and the inset table we conclude that if a person actually has pulmonary tuberculosis it does not make much difference to the mortality afterwards whether his parents had consumption or whether they had not. This does not of course mean that the offspring of tuberculous parents are not more likely to have the disease than the offspring of non-tuberculous parents, it merely means that if an individual has the type of constitution that gives the disease a chance of getting a firm hold it does not matter whether that constitution is directly traceable to the parents, was acquired by illness or otherwise or was due merely to chance. There seems a slight tendency for those cases with tubercular parents to be in the earliest age group which would make us expect a heavier relative mortality (see B (i), p. 13).

TABLE K. *One or both parents known to have had Tuberculosis. (Adirondack.)*

Incipient cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·07	—	·13
1	—	·16	—	·27
2	1	·17	—	·27
3	—	·17	—	·29
4	2	·18	—	·30
5	2	·17	1	·29
6	—	·18	—	·23
7	1	·14	—	·15
8	1	·11	—	·12
9	1	·09	—	·11
10	—	·04	—	·07
11	—	·03	1	·06
12	—	·02	—	·05
13	—	—	—	·03
14	—	—	—	·01
Total	8	1·53	2	2·38

Advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·19	—	·25
1	11	·39	7	·49
2	3	·35	3	·45
3	4	·35	8	·45
4	7	·34	7	·43
5	—	·29	3	·40
6	2	·28	1	·37
7	1	·27	3	·33
8	1	·21	1	·29
9	1	·18	—	·21
10	3	·14	1	·18
11	—	·03	1	·14
12	—	—	—	·12
13	—	—	—	·06
Total	33	3·02	35	4·17

Far advanced cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·02	—	·02
1	4	·03	3	·05
2	2	·02	2	·03
3	—	—	—	·01
4	—	—	—	·02
5	—	—	—	·02
6	—	—	—	·01
7	—	—	—	·01
8	—	—	—	·01
Total	6	·07	5	·18

B (v). *The mortality of those cases that were treated with tuberculin.*

Practically no far advanced cases were treated with tuberculin, so our investigation only relates to the incipient and advanced cases. The mortality was low but this is largely due to the fact that the majority of cases treated were in the third thousand which as we have already seen show a light mortality. The incipient class taking both sexes together had a heavier and the advanced class a lighter mortality than the corresponding classes in the whole of the 2,250 cases; while the

mortality of the tuberculin cases is heavier than that of the third thousand with which it would, perhaps, be fair to make our comparison (Tables L and lix to lxvi).

We found that it was impracticable to separate the various kinds of tuberculin used and work out separate mortality tables for each kind owing to the small number that would have been available for almost all the groups to be considered, but as nearly all the tuberculin cases among the third thousand were treated by TBF or TBF Co* we worked out the mortality for this part of the tuberculin experience. These cases relate to the most recent admissions to the Sanitarium and the longest duration was 5 years. The recent admissions have the lightest mortality and the early years after admission heavier mortality than the later years, so that a comparison with the whole experience of the third thousand is probably reasonably accurate. The incipient cases treated with TBF show a slightly lower and the advanced cases a slightly higher mortality than that of the third thousand as a whole. It will be observed that this is exactly the opposite result from that found in the previous paragraph. The number of cases is too small to draw any conclusion from the divergence. If confirmed by other investigations it might mean that TBF was more suitable for incipient and other tuberculins for advanced cases.

When considering the mortality of patients treated with tuberculin and comparing results with those who received general sanatorium treatment it must be remembered that a careful choice of cases was made. Dr Lawrason Brown in a paper which appeared in 1904†, pointed out that at the Adirondack Sanitarium tuberculin was given only to those cases "who were in good condition, without fever, whose sputum contained at some time tubercle bacilli, and whose lungs were not extensively involved. Many, of course, of these cases would have recovered undoubtedly without the use of tuberculin. During the last two years (1902 and 1903) those cases have been selected for tuberculin treatment who, after a number of months' residence in the Sanitarium, have shown little or no pulmonary improvement."

The result of this selection is that a large proportion of cases had T. B. in sputum and so as already explained a somewhat heavier mortality among the tuberculin cases than among the remainder would be expected,—this actually happened. As a set-off against this we must bear in mind the first sentence quoted above. Taking all these facts into account our investigation into the subsequent history of the patients treated with tuberculin tends so far as it goes to confirm Dr Lawrason Brown's opinion in the paper mentioned above that the treatment does not give substantially better results than that of the ordinary Sanatorium. The mortality shown in these tables is amply explained by

(1) The selection of cases,

(2) The later date of the experience relating to the tuberculin treated cases.

* TBF is spoken of as "Broth Filtrate" or as "Denys' tuberculin." TBF Co is a mixture of "Broth Filtrate" and the "Bacillary Emulsion."

† "A Study of the Cases of Pulmonary Tuberculosis treated with Tuberculin at the Adirondack Cottage Sanitarium," by Lawrason Brown, M.D., *Zeitschrift für Tuberkulose und Heilstättenwesen*, Bd. VI. No. 4, Leipzig, 1904.

We do not, of course, say that there is no case in which tuberculin can be of great use. It would, on the evidence, be impossible for us to do so. All we can say is that the value of tuberculin as judged from the subsequent mortality has not yet been proved.

These were the only special investigations that we made from the data of the Adirondack Sanitarium but we are inclined to think that at some future date it may prove possible to make an investigation in which the relative weight of patients is taken into account. Such an investigation might help those treating the disease to decide which cases are likely to do well under treatment and which are not. Although we put forward the suggestion feeling that any such remark made by laymen may be open to severe criticism, we hope we may be forgiven for suggesting that it is conceivable that there are some cases that might do well if treated by tuberculin, there are other cases that might do badly if treated by tuberculin but well if treated by ordinary sanatorium methods, and there might be a third class of case which requires some different treatment from either of these two. If a study of the statistics of Sanatoria could help the medical profession to settle in which class each case might fall, the statistician would feel that he had assisted them in the cause which they have so greatly at heart.

Investigations of Ayrshire Sanatorium and Bridge of Weir Sanatorium.

The information on which the investigation as regards the Ayrshire Sanatorium is based was taken from Dr Edward E. Prest's 1912 Report. The Report does not state whether T. B. had been found in the sputum but the cases have been divided into Turban stages I, II and III and the mortality has been investigated for each stage separately, distinguishing male and female cases. The experience relates to five years as the Sanatorium was only started in 1906. The average stay in the Sanatorium was about five months and a few cases have been treated with tuberculin, but which cases is not stated in the Report. Table M gives the results and they are included in abstract in the inset table.

Our investigation into the mortality of the Bridge of Weir Sanatorium was based on information given to us by Dr Guy and relates only to cases admitted recently. The Sanatorium has taken patients for some years but no attempt to trace them was made until some years after the earlier admissions to the Sanatorium had been discharged, and it was found impossible to make anything of the earlier material. Even among the later data there were 15 untraced. This is however by no means an undue number when it is remembered that five or six years may have elapsed since discharge before the patient was enquired about.

The results of the experience are shown in Table N and in the inset table. It will be seen that the mortality is somewhat heavy, but the patients were drawn from the poorer part of the community, and one would therefore expect that it would be harder for them to take care of themselves after discharge than it would be for patients in a more fortunate financial position. The short duration of the experience would also account for part of the heavier mortality (see p. 13).

TABLE L. *Cases treated with Tuberculin. (Adirondack.)*

Incipient cases

No. of years since Admission	Males		Females	
	Actual No. of Deaths	Expected No. of Deaths	Actual No. of Deaths	Expected No. of Deaths
0	—	·39	—	·26
1	1	·61	1	·37
2	3	·47	1	·31
3	1	·40	—	·18
4	3	·31	—	·10
5	2	·24	—	·08
6	—	·11	—	·05
7	—	·12	—	·05
8	2	·12	—	·04
9	—	·09	—	·04
10	1	·09	1	·04
11	—	·06	—	·03
12	—	·04	—	·03
13	—	·01	—	·01
Total	13	3·06	3	1·59

Advanced cases

0	1	·82	1	·56
1	8	1·17	3	·82
2	12	·89	14	·63
3	2	·55	4	·40
4	4	·41	3	·26
5	4	·31	—	·14
6	3	·21	—	·09
7	—	·14	1	·10
8	—	·12	1	·06
9	—	·09	—	·04
10	1	·09	—	·05
11	—	·07	—	·02
12	1	·03	—	·02
13	—	·01	—	·01
Total	36	4·91	27	3·20

T. B. F., etc. cases (included in above).

Incipient

0	—	·24	—	·13
1	1	·34	1	·21
2	1	·22	—	·17
3	—	·16	—	·09
4	—	·06	—	—
5	—	·03	—	—
Total	2	1·05	1	·60

Advanced

0	—	·50	—	·32
1	6	·67	4	·48
2	6	·40	4	·32
3	1	·12	2	·18
4	1	·02	1	·02
Total	14	1·71	11	1·32

TABLE M. *Ayrshire Sanatorium Data. Mortality from Date of Admission.*

Turban Stage I

Sex	Males			Females		
Total No. Admitted	39			46		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	39	1	·26	44	2	·21
1	31	1	·18	38	2	·19
2	20	1	·14	21	1	·11
3	12	1	·10	16	1	·09
4	6	—	·05	8	—	·05
5	—	—	—	1	1	·01
Total	108	4	·73	128	7	·66

Turban Stage II

Sex	Males			Females		
Total No. Admitted	61			48		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	59	11	·41	48	1	·26
1	35	7	·26	27	7	·16
2	14	3	·10	14	2	·08
3	7	1	·05	8	1	·05
4	2	—	·02	4	—	·03
5	1	—	·01	—	—	—
Total	118	22	·85	101	11	·58

Turban Stage III

Sex	Males			Females		
Total No. Admitted	74			57		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	73	36	·61	57	31	·34
1	30	9	·29	22	9	·15
2	11	4	·11	7	2	·06
3	5	1	·06	1	1	·01
4	1	—	·02	—	—	—
Total	120	50	1·09	87	43	·56

TABLE N. *Bridge of Weir Sanatorium.*

Mortality from Date of Admission.

Incipient cases

Sex	Males			Females		
Total No. Admitted	7			7		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	3	—	·02	3	—	·01
1	6	1	·04	7	—	·03
2	4	—	·04	6	—	·03
3	4	—	·03	5	—	·02
4	2	—	·02	3	1	·01
5	1	—	·01	1	—	·00
6	1	—	·01	1	—	·00
Total	21	1	·17	26	1	·10

Advanced cases

Sex	Males			Females		
Total No. Admitted	36			29		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	18	1	·16	14	2	·08
1	34	7	·32	27	10	·15
2	23	13	·20	17	3	·09
3	7	1	·07	12	3	·07
4	4	1	·03	7	—	·04
5	1	—	·01	5	3	·03
6	—	—	—	1	—	·01
Total	87	23	·79	83	21	·47

Far advanced cases

Sex	Males			Females		
Total No. Admitted	19			10		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	9	3	·07	5	1	·03
1	16	9	·10	9	4	·05
2	7	3	·05	5	1	·03
3	3	—	·03	4	4	·02
4	3	—	·03	—	—	—
5	1	—	·02	—	—	—
Total	39	15	·30	23	10	·13

Mortality from Date of Discharge.

Arrested cases

Sex	Males			Females		
Total No. Discharged	18			15		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	9	1	·07	7	—	·04
1	15	3	·13	15	1	·08
2	10	1	·09	14	1	·07
3	6	1	·06	11	1	·06
4	3	—	·03	6	1	·04
5	1	—	·01	2	—	·01
Total	44	6	·39	55	4	·30

Active cases

Sex	Males			Females		
Total No. Discharged	44			31		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	22	10	·18	15	8	·09
1	32	15	·28	23	12	·12
2	14	8	·11	9	5	·05
3	5	—	·04	3	1	·02
4	2	—	·02	2	2	·01
5	1	—	·00	—	—	—
Total	76	33	·63	52	28	·29

In both the Scottish experiences the female mortality is heavier than that of the males—except for Ayrshire stage II and Bridge of Weir "Arrested cases"—and this result is noticeably different from that found from the American data. Perhaps the women-folk among the poorer classes have, as compared with the men-folk, harder lives than among the classes in better circumstances.

Pre-Sanatorium Data.

Thanks to the kindness of Dr Lawrason Brown we have had an opportunity of examining some pre-sanatorium records which Dr Brown had extracted on cards from the records of Dr Austin Flint. These records relate to cases which were seen by Flint between 1845 and 1870. Flint started practice in Northampton, Mass., and afterwards worked in Buffalo, N.Y., Louisville, Ky., and New Orleans, La., until the outbreak of the Civil War when he went to New York City where he practised during the last twenty or twenty-five years of his life. We understand his connection in all these places was with the City Hospitals where they then admitted every patient who applied. "The tuberculous patients would," writes Dr Lawrason Brown, "necessarily apply for admission only when they were desperately sick and no doubt many of them came into the hospital to die, or for acute complications." As a result the data from Dr Flint's hospital records are of little use for our present purpose: naturally it is difficult to trace hospital patients after they are discharged and it is unlikely that their deaths would be recorded in the public press. But besides his hospital work Dr Austin Flint had a private practice and from his case books Dr Brown has obtained information which although open to some criticism on the statistical side is certainly of interest. These particulars relate to between four hundred and five hundred cases and have been divided as nearly as may be from Flint's records into "Incipient," "Advanced" and "Far-advanced" cases; a few cases in which the sex was not recorded or for other reasons were omitted by us, but there were so few that they could not affect any conclusion drawn from the data.

The facts are shown in Table O.

TABLE O. *Dr Austin Flint's Private Patients.*

Class	Males				Females			
	Total number	Number untraced	Actual No. of Deaths	Expected No. of Deaths	Total number	Number untraced	Actual No. of Deaths	Expected No. of Deaths
Incipient	27	13	5	·36	9	4	2	·22
Advanced	216	111	57	3·09	84	36	38	1·02
Far advanced...	73	32	37	·35	34	16	18	·20
Total.....	316	156	99	3·80	127	56	58	1·44

In this table the "number untraced" includes all those who were not heard from at a later date than six months after they were seen. It seems likely that no systematic attempt was made to trace the patients, but records were kept of patients who happened to be heard from or whose deaths were known from the public press or private information. The effect of such a method would be that any person who had had consumption and outlived Flint might appear as an 'untraced' case, whereas if he had died just before Flint he would have appeared as a 'death' with a duration of, say, five years. The method from this point of view exaggerates the mortality: but, on the other hand, it is possible that Flint would have been more likely to hear from those who were grateful after recovery or arrest than from the relatives of those who died. There is also the possibility that Flint did not contemplate any statistical use for his material and noted the cases which lived a long time rather than those who died early. We see little evidence of this in the data, but these possible weaknesses in the material must be borne in mind.

The expected number of deaths was found by using the English Life Table (No. 6) and making full allowance for the age of the patient. This is somewhat severe on American lives of 1850 and thereabouts as the table relates to a far more recent time and in England the mortality at the ages with which we are concerned has decreased in the interval by about 20 °/₀.

The distribution of the cases is also worthy of notice; a comparison of Table O with Table D shows at once that the cases were of a more advanced type than even the first thousand Adirondack cases—a fact which makes Flint's results appear worse in a comparison than they are.

Summary and Conclusion.

Dealing first with the pre-sanatorium data it is interesting to set out Flint's results beside those given in our earlier memoir for Williams's and Pollock's data (see Table P) but Flint's data are, subject to the limitations indicated above, in a better form than Williams's and Williams's than Pollock's.

TABLE P. *Mortality in pre-sanatorium days.*

Name of observer	Ratio of actual deaths to the number expected by English Life Table (No. 6)
Pollock—all cases neglecting durations over one year.	5·4
Williams—all cases assuming 2 years onset to treatment.	3·6
Flint—Incipient	11·7
Advanced	23·1
Far advanced	100·0

No comparison between these results can be really satisfactory. The patients were of different class and nationality and apart from this the circumstances of the

American population about 1850 as compared with those of the English population from which Williams drew his patients would alone prevent us from drawing any definite conclusions.

We must remind our readers too, that any comparison between sanatorium results and 'pre-sanatorium' records is open to considerable criticism; many difficulties in this connection have already been indicated and alterations in diagnosis or in the selection of cases go a long way towards making it impossible to conclude with certainty whether the mortality is lighter now than it was in the earlier times. In Flint's cases for instance it is clear that no one can say whether allowance for the various possible influences that have been mentioned would be sufficient to reduce the mortality by the 50 °/₀ necessary to bring it to the same rate as that shown by the first thousand Adirondack cases.

We hope and think that some improvement has taken place, but it is far less than has sometimes been stated.

Turning now to the Sanatorium results the following table gives a comparison of the results found in our previous memoir and in the present investigation.

TABLE Q. *Showing the ratio of actual deaths to the number expected by English Life Table (No. 6).*

Name of observer	Incipient	Advanced	Far advanced
Lawrason Brown (2250 cases)	3·0	10·2	39·9
Bardswell	4·1	7·8	37·5
Guy	7·4	34·9	58·1
Prest*	7·9	23·1	56·3
Rumpf*	1·7 to 2	4·5 to 5	15 to 30

* These groups are Turban stages I, II and III.

The heavier mortality in the Scottish cases may be due to the class from which the patients are drawn, but the deviations throughout the table lead one to feel that very different systems of classification may have been used.

Turning again to the results reached in the present paper we summarise our conclusions as follows:—

(1) The mortality of the cases more recently admitted to the Adirondack Sanitarium is considerably lighter than that of the earlier admissions, but a large part of this decrease in mortality is due to a different selection and possibly a different classification, at any rate on discharge. Even apart from improvement in treatment, the greater success in selecting suitable cases and in judging which cases are cured implies a real advance in knowledge. Such knowledge might become a matter of considerable social importance.

(2) The mortality of patients with T.B. in the sputum is more than twice as heavy as that of patients whose sputum does not contain T.B. on the basis on which the inset table is formed*.

* The mortality of patients not having T.B. in the sputum is considerably heavier than that of the English Life Table (No. 6) which is evidence that T.B. is not an adequate test of the existence of phthisis.

(3) Patients who have had haemoptysis will, as a whole, have a slightly heavier mortality than those who have not (about one and a half times as heavy on the basis of the inset table).

(4) The mortality of those suffering from the disease is not heavier if their parents also had the disease. This as explained on p. 16 does not bear on the inheritance of tuberculous diathesis.

(5) The mortality shows the greatest excess at the younger ages at admission.

(6) There is no evidence from the mortality shown in the data before us to prove that tuberculin as compared with ordinary sanatorium treatment appreciably lengthens the life of the consumptive. If the use of tuberculin had the very marked results claimed by some of its supporters we should have anticipated more definite evidence of its effect on mortality.

These, it seems, are the only conclusions we can draw with safety. From the statistical point of view we must repeat the remark made in our previous memoir (p. 19) that treatment, owing to better diagnosis, may now be taking credit for some cures that nature formerly effected unaided. We do not repeat this warning to try to dishearten those who are working in sanatoria, dispensaries and elsewhere; it is however essential in comparing treatment etc. to study like things; advanced cases treated with tuberculin show worse results than incipient cases treated without it, but this does not prove that tuberculin is a worse method of treatment, it merely indicates that we must compare effects in like circumstances and that our comparisons will be vitiated unless the same classification is used in each case.

The subject is a large and important one; the importance is especially great in the United Kingdom where so much is being done at the moment in connection with National Health Insurance; wrong judgments and mistakes made now may have results which will be regretted for many years; surely it is worth while to collect and sift all available material and criticise all our results; perhaps it is even worth while to try various methods of treatment more or less at random in order to see which is the best in different circumstances. A few patients might not be treated by the method which is ultimately shown to be most suited to their type of case; but can we be sure that they are treated by the best methods now? To mere statisticians like ourselves it seems probable that the community as a whole would benefit considerably by such an investigation, and future sufferers from the disease and their friends might at no very distant date be able to hope for more success from treatment than is possible at the present time.

Table showing the Ratio of the actual number of deaths to the expected number by the English Life Table (No. 6).

Class investigated			Males	Females	Both sexes
Adirondack Cottage Sanitarium.					
From admission.	Incipient cases.	1st thousand...	4·7	2·7	3·7
	,,	2nd ,, ...	2·9	2·5	2·8
	,,	3rd ,, ...	3·4	1·0	2·3
	Advanced cases.	1st ,, ...	13·7	11·4	12·5
	,,	2nd ,, ...	10·5	10·7	10·6
	,,	3rd ,, ...	7·1	7·9	7·4
	Far advanced cases.	1st ,, ...	38·6	50·3	43·5
	,,	2nd ,, ...	36·0	48·3	40·6
	,,	3rd* ,, ...	12·5	8·0	11·1
From discharge.	Apparently cured cases.	1st ,, ...	2·9	2·4	2·6
	,,	2nd ,, ...	2·0	1·7	1·9
	,,	3rd ,, ...	1·0	—	·6
	Arrested cases.	1st ,, ...	11·7	8·0	9·7
	,,	2nd ,, ...	8·1	8·4	8·2
	,,	3rd ,, ...	4·4	3·1	3·9
	Active.	1st ,, ...	24·4	35·4	28·6
	,,	2nd ,, ...	24·6	21·6	23·0
	,,	3rd ,, ...	19·7	17·5	18·7
From admission—last 2250 cases.					
All cases.	Incipient		3·6	2·3	3·0
	Advanced		10·0	10·4	10·2
	Far advanced		36·8	45·4	39·9
Incipient.	Age at admission :—under 23		8·2	2·6	5·7
	23—27		3·8	2·6	3·2
	28—32		2·8	3·0	2·9
	33 and over		1·5	1·3	1·4
Advanced.	Age at admission :—under 23		16·2	16·2	16·2
	23—27		12·5	14·8	13·7
	28—32		10·8	9·5	10·2
	33 and over		6·8	5·5	6·2
T. B. in sputum.	Incipient		4·8	3·8	4·4
	Advanced		10·7	13·1	11·7
Haemoptysis present.	Incipient		5·2	2·3	4·0
	Advanced		11·1	10·2	10·7
	Far advanced		38·7	27·3	34·0
Parent tuberculous.	Incipient		5·2	·9	2·6
	Advanced		10·9	8·3	9·5
	Far advanced*		85·7	27·8	44·0
Cases treated with tuberculin.	Incipient		4·2	1·9	3·4
	Advanced		7·3	8·4	7·8
Cases treated with T. B. F. etc.	Incipient		1·9	1·7	1·8
	Advanced		8·2	8·3	8·3
Ayrshire Sanatorium					
From discharge.	Turban Stage I		5·3	10·0	7·9
	,, ,, II		25·9	18·9	23·1
	,, ,, III		45·8	76·8	56·3
Bridge of Weir Sanatorium.					
From admission.	Incipient		5·9	10·0	7·4
	Advanced		29·1	44·7	34·9
	Far advanced		50·0	76·9	58·1
From discharge.	Arrested		15·2	13·3	14·4
	Active		52·4	96·6	67·0
Flint's Pre-Sanatorium. American data.					
From admission.	Incipient*		13·9	9·1	11·7
	Advanced		18·4	37·2	23·1
	Far advanced		106·0	90·0	100·0

* Very small number of cases.

APPENDIX.—TABLES.

ADIRONDACK. "First Thousand."

(i) MALES—INCIPIENT CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	28			19			19			3			4			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	13	—	·06	9	—	·05	7	—	·05	0	—	·00	2	—	·02	0	—	·00
1	27	—	·13	16	—	·09	15	1	·10	2	—	·02	3	1	·04	2	—	·04
2	27	1	·13	16	—	·10	14	—	·10	2	—	·02	2	—	·03	2	—	·04
3	26	1	·13	16	1	·10	13	1	·10	2	—	·02	2	—	·03	2	—	·04
4	25	—	·13	16	2	·10	12	1	·10	2	—	·02	2	—	·03	2	1	·05
5	25	1	·14	15	—	·09	11	—	·09	2	—	·02	2	—	·03	1	—	·02
6	24	4	·14	13	1	·09	10	—	·10	2	—	·02	2	—	·03	1	—	·03
7	19	2	·11	12	1	·09	10	—	·10	2	—	·03	2	—	·03	1	—	·03
8	17	2	·10	11	1	·09	10	1	·10	2	—	·03	2	—	·03	1	—	·03
9	14	2	·09	10	—	·08	8	—	·09	2	—	·03	2	—	·04	1	—	·03
10	12	—	·08	9	—	·08	8	—	·09	2	—	·03	2	—	·04	1	—	·03
11	12	—	·08	9	—	·08	8	—	·10	2	—	·03	2	—	·04	1	—	·04
12	12	—	·09	9	—	·09	8	—	·10	2	—	·03	2	—	·04	1	—	·04
13	9	—	·07	7	—	·07	8	—	·11	2	—	·03	1	—	·02	1	—	·04
14	8	—	·07	4	—	·04	8	—	·11	2	—	·04	1	—	·02	1	—	·04
15	7	—	·06	4	—	·05	5	—	·07	—	—	—	—	—	—	1	—	·05
16	6	—	·06	4	—	·05	4	—	·06	—	—	—	—	—	—	1	—	·05
17	5	—	·05	3	—	·04	3	—	·05	—	—	—	—	—	—	1	—	·06
18	2	—	·02	—	—	—	2	—	·03	—	—	—	—	—	—	—	—	—
19	2	—	·02	—	—	—	1	—	·02	—	—	—	—	—	—	—	—	—
20 & over	1	—	·01	—	—	—	6	—	·12	—	—	—	—	—	—	—	—	—
Doubtful	—	2	—	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—
Total	293	15	1·77	183	7	1·38	171	6	1·79	28	—	·37	29	1	·47	21	1	·66

(ii) MALES—ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	71			75			76			35			21			17		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	28	1	·13	33	2	·18	28	1	·18	14	1	·12	9	—	·11	6	—	·12
1	64	12	·30	63	10	·36	63	7	·43	27	—	·25	16	3	·19	15	2	·30
2	45	3	·22	51	12	·30	53	9	·39	27	4	·26	12	2	·15	12	3	·26
3	40	6	·21	37	3	·23	40	5	·31	21	3	·22	10	1	·13	8	1	·17
4	31	1	·16	34	4	·21	33	6	·27	16	1	·18	8	1	·12	6	1	·15
5	29	2	·16	29	4	·19	24	1	·21	15	3	·17	7	1	·10	5	—	·12
6	26	2	·16	24	3	·17	23	1	·21	10	1	·12	6	2	·09	5	—	·13
7	22	—	·13	21	3	·15	22	—	·21	8	—	·10	4	—	·06	3	2	·07
8	22	3	·13	18	1	·14	22	—	·22	8	1	·11	4	—	·06	2	—	·07
9	17	2	·11	16	1	·13	21	—	·23	7	—	·09	4	—	·06	2	—	·08
10	14	—	·09	15	—	·13	21	—	·23	7	—	·10	3	—	·07	2	1	·08
11	14	—	·09	15	—	·14	20	3	·24	7	1	·10	3	—	·07	—	—	—
12	14	—	·10	15	1	·15	16	1	·21	5	—	·08	3	1	·07	—	—	—
13	13	—	·10	14	2	·14	15	—	·20	5	—	·08	2	1	·05	—	—	—
14	12	—	·10	11	1	·12	12	—	·17	5	—	·09	1	—	·02	—	—	—
15	10	—	·08	6	—	·07	11	—	·16	4	—	·07	1	—	·02	—	—	—
16	8	—	·07	4	—	·05	8	—	·12	2	—	·04	1	—	·03	—	—	—
17	6	—	·06	3	1	·04	7	—	·11	2	—	·04	1	—	·03	—	—	—
18	6	—	·06	2	—	·03	7	—	·12	1	—	·02	1	—	·03	—	—	—
19	5	1	·05	2	—	·03	5	—	·09	1	—	·02	1	—	·03	—	—	—
20 & over	5	—	·05	2	1	·03	6	—	·12	2	—	·05	—	—	—	—	—	—
Doubtful	—	20	—	—	8	—	—	13	—	—	9	—	—	3	—	—	3	—
Total	431	53	2·56	415	57	2·99	457	47	4·43	194	24	2·31	97	15	1·49	66	13	1·55

ADIRONDACK. "First Thousand" (*continued*).

(iii) MALES—FAR ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	33			29			20			13			6			3		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	11	1	·05	10	—	·05	8	—	·05	5	2	·05	2	—	·02	1	1	·02
1	30	12	·14	27	12	·16	18	6	·12	8	1	·07	5	3	·06	2	—	·04
2	11	4	·05	13	3	·07	8	2	·06	6	1	·06	2	—	·03	2	—	·04
3	4	1	·02	8	4	·05	5	1	·04	4	1	·04	2	1	·03	2	2	·04
4	3	—	·01	3	1	·02	4	—	·03	3	—	·03	1	—	·01	—	—	—
5	3	—	·01	2	—	·01	4	—	·03	3	—	·03	1	1	·01	—	—	—
6	3	—	·01	2	—	·01	4	—	·03	3	—	·03	—	—	—	—	—	—
7	3	—	·02	2	—	·01	4	—	·04	3	1	·03	—	—	—	—	—	—
8	2	—	·02	2	—	·01	4	—	·04	1	—	·01	—	—	—	—	—	—
9	2	—	·02	2	—	·02	3	—	·04	1	—	·01	—	—	—	—	—	—
10	2	1	·02	2	—	·02	3	1	·04	1	—	·01	—	—	—	—	—	—
11	1	—	·01	2	—	·02	1	—	·01	1	—	·02	—	—	—	—	—	—
12	1	—	·01	2	—	·02	1	—	·01	1	—	·02	—	—	—	—	—	—
13	1	—	·01	2	—	·02	—	—	—	1	—	·02	—	—	—	—	—	—
14	1	—	·01	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—
15	1	—	·01	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—
16	1	—	·01	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—
17	1	—	·01	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
18	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20 & over	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Doubtful	—	12	—	—	4	—	—	6	—	—	4	—	—	—	—	—	—	—
Total	85	31	·48	86	24	·56	71	16	·54	41	10	·43	13	5	·16	7	3	·14

(iv) FEMALES—INCIPIENT CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	42			31			27			12			5			4		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	18	—	·07	13	—	·06	12	—	·07	5	—	·04	1	—	·01	2	—	·03
1	35	2	·15	27	—	·14	25	—	·16	11	—	·09	4	—	·04	2	—	·03
2	31	—	·14	27	1	·14	25	—	·17	11	—	·09	4	—	·04	2	—	·03
3	31	1	·14	26	—	·14	25	2	·17	11	1	·10	4	—	·04	2	—	·03
4	29	1	·14	25	1	·15	23	—	·16	10	—	·09	4	—	·04	2	—	·04
5	27	—	·13	24	1	·15	23	—	·17	10	—	·09	4	—	·05	2	2	·04
6	27	1	·13	23	—	·14	23	—	·18	9	—	·09	4	—	·05	—	—	—
7	24	—	·13	22	—	·14	22	—	·19	9	—	·09	4	—	·05	—	—	—
8	24	—	·13	22	—	·15	22	—	·20	8	—	·09	4	—	·05	—	—	—
9	24	1	·14	22	—	·16	22	—	·20	8	—	·09	4	—	·06	—	—	—
10	22	—	·13	21	—	·16	21	1	·21	8	—	·10	4	—	·06	—	—	—
11	22	—	·14	21	—	·17	20	1	·20	8	1	·10	4	—	·06	—	—	—
12	21	—	·14	21	—	·18	19	—	·20	7	—	·09	4	—	·07	—	—	—
13	17	—	·12	21	—	·19	17	—	·18	5	—	·07	4	—	·07	—	—	—
14	13	—	·09	19	—	·17	14	—	·15	3	—	·04	4	—	·07	—	—	—
15	11	—	·08	15	1	·15	8	—	·09	2	—	·03	4	—	·03	—	—	—
16	9	—	·07	13	—	·13	5	—	·06	1	—	·02	2	—	·04	—	—	—
17	8	—	·07	13	—	·14	3	—	·04	1	—	·02	1	1	·02	—	—	—
18	7	—	·06	8	—	·09	2	—	·03	1	—	·02	—	—	—	—	—	—
19	6	—	·06	6	—	·07	1	—	·01	1	—	·02	—	—	—	—	—	—
20 & over	4	—	·04	8	—	·09	—	—	—	—	—	—	—	—	—	—	—	—
Doubtful	—	6	—	—	2	—	—	1	—	—	1	—	—	—	—	—	—	—
Total	410	12	2·30	398	6	2·91	332	5	2·84	129	3	1·37	64	1	·90	12	2	·20

ADIRONDACK. "First Thousand" (*continued*).

(v) FEMALES—ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	84			82			64			22			20			18		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	43	2	·18	36	—	·18	29	1	·17	10	1	·08	7	—	·07	6	—	·07
1	71	16	·30	64	6	·33	54	7	·34	19	3	·15	19	2	·19	15	1	·23
2	50	8	·21	55	3	·30	44	6	·29	15	3	·13	15	1	·16	14	3	·22
3	38	5	·17	48	3	·27	34	2	·24	11	2	·10	14	1	·15	10	1	·18
4	31	2	·15	44	4	·25	31	2	·23	9	—	·08	12	—	·13	9	—	·17
5	29	2	·14	38	3	·23	28	2	·22	9	—	·08	12	1	·14	9	—	·18
6	26	4	·13	33	—	·21	24	1	·20	9	—	·09	10	—	·12	9	—	·19
7	21	2	·11	33	4	·22	23	2	·19	9	—	·09	9	1	·12	9	2	·20
8	18	2	·10	28	2	·19	20	—	·18	9	1	·09	7	1	·10	7	—	·16
9	15	—	·09	25	—	·18	20	—	·19	8	—	·08	6	—	·08	7	2	·17
10	15	—	·09	25	1	·19	20	—	·20	7	—	·09	6	—	·08	4	—	·12
11	14	—	·09	23	1	·19	20	—	·20	7	1	·09	6	—	·09	4	—	·13
12	14	—	·09	22	—	·18	18	1	·19	6	—	·08	6	—	·09	4	—	·14
13	13	2	·09	17	1	·15	16	2	·17	5	—	·07	6	—	·10	4	—	·15
14	9	1	·07	12	—	·12	11	—	·12	4	—	·06	6	—	·10	3	1	·12
15	5	—	·04	9	1	·09	9	—	·10	4	—	·06	6	—	·11	2	—	·08
16	4	—	·03	8	—	·08	7	—	·08	3	—	·05	6	—	·11	1	—	·04
17	4	—	·03	7	—	·07	6	—	·08	3	1	·05	5	—	·10	1	—	·05
18	3	—	·03	6	—	·06	5	—	·06	1	—	·02	4	—	·09	1	—	·05
19	3	—	·03	5	—	·06	4	—	·06	—	—	—	4	—	·10	1	—	·06
20 & over	2	—	·02	8	—	·09	1	—	·01	—	—	—	4	1	·14	—	—	—
Doubtful	—	16	—	—	13	—	—	11	—	—	3	—	—	6	—	—	2	—
Total	428	62	2·19	546	42	3·64	424	37	3·52	148	15	1·54	170	14	2·37	120	12	2·71

(vi) FEMALES—FAR ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	24			28			25			9			4			4		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	11	1	·04	10	3	·05	9	1	·05	4	—	·03	2	1	·02	1	—	·01
1	22	11	·09	24	11	·12	22	7	·14	7	2	·06	3	2	·03	3	1	·05
2	8	2	·04	11	2	·06	12	4	·08	5	—	·04	1	1	·01	2	—	·03
3	6	1	·03	7	5	·04	7	3	·05	5	—	·04	—	—	—	1	—	·02
4	5	—	·02	1	1	·01	3	1	·02	5	2	·05	—	—	—	1	—	·02
5	5	—	·02	—	—	—	1	—	·01	3	1	·03	—	—	—	1	—	·02
6	5	—	·02	—	—	—	1	—	·01	2	—	·02	—	—	—	1	—	·02
7	5	1	·02	—	—	—	1	1	·01	2	1	·02	—	—	—	1	1	·02
8	3	—	·02	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
9	3	1	·02	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
10	2	—	·01	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
11	2	1	·01	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
12	1	—	·01	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
13	1	—	·01	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
14	1	—	·01	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
Doubtful	—	4	—	—	3	—	—	6	—	—	—	—	—	—	—	—	—	—
Total	80	22	·37	53	25	·28	56	23	·37	40	6	·36	6	4	·06	11	2	·19

ADIRONDACK. "Second Thousand."

(vii) MALES—INCIPIENT CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	40			36			38			11			8			10		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	18	—	·08	14	1	·08	17	—	·11	5	—	·05	3	—	·04	5	1	·09
1	40	1	·19	34	—	·19	38	1	·26	11	—	·10	8	—	·10	9	—	·18
2	39	2	·19	34	1	·20	37	—	·27	11	—	·11	8	—	·10	9	2	·19
3	37	3	·19	33	—	·20	37	1	·29	11	—	·12	8	1	·11	7	—	·16
4	34	1	·18	33	5	·21	36	—	·30	11	—	·12	7	—	·10	7	—	·16
5	33	—	·18	27	—	·18	36	1	·31	11	—	·13	7	—	·10	7	—	·18
6	33	2	·19	27	—	·18	35	—	·32	11	—	·13	7	—	·11	7	—	·19
7	29	1	·17	24	—	·17	30	—	·30	9	—	·11	6	—	·10	7	—	·19
8	22	—	·13	19	—	·15	22	1	·23	8	—	·11	3	—	·05	6	—	·18
9	15	1	·10	14	—	·12	14	—	·15	5	—	·07	2	—	·04	6	—	·20
10	11	2	·07	13	—	·11	9	1	·11	3	—	·04	2	—	·04	1	—	·04
11	4	—	·03	7	—	·07	5	—	·06	2	—	·03	1	—	·02	1	—	·04
12	—	—	—	2	—	·02	1	—	·01	—	—	—	—	—	—	1	—	·04
Doubtful	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	315	13	1·70	281	8	1·88	317	5	2·72	98	—	1·12	62	1	·91	73	3	1·84

(viii) MALES—ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	74			96			65			36			23			18		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	40	2	·18	52	2	·29	33	1	·22	17	2	·14	11	—	·13	9	1	·17
1	70	15	·33	94	9	·54	64	3	·44	34	4	·31	23	3	·28	17	2	·34
2	55	5	·27	85	11	·51	61	6	·44	29	3	·29	20	3	·25	15	2	·32
3	50	5	·26	74	3	·45	55	11	·42	26	—	·27	17	3	·22	13	—	·29
4	45	4	·24	70	7	·44	43	4	·36	26	3	·29	14	4	·19	13	2	·30
5	41	2	·23	63	4	·41	39	6	·34	23	2	·26	10	1	·15	11	1	·27
6	39	3	·22	59	7	·40	33	1	·31	20	3	·25	9	—	·14	10	2	·26
7	31	3	·18	46	2	·34	27	1	·26	15	—	·19	6	1	·10	8	—	·23
8	21	1	·13	35	2	·27	15	1	·16	13	—	·17	4	—	·07	8	1	·24
9	15	—	·10	26	—	·21	8	1	·09	12	1	·17	3	1	·05	7	—	·23
10	9	1	·06	19	2	·16	6	—	·07	9	—	·13	1	—	·02	4	1	·14
11	3	—	·02	10	—	·09	1	—	·01	5	—	·08	1	—	·02	2	—	·07
12	—	—	—	2	—	·02	—	—	—	2	—	·03	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—
Total	419	41	2·22	635	49	4·13	385	36	3·12	231	20	2·58	119	16	1·62	117	12	2·86

ADIRONDACK. "Second Thousand" (*continued*).

(ix) MALES—FAR ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	8			14			7			4			2			3		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	3	—	·01	4	—	·02	2	—	·02	1	—	·01	—	—	·00	1	—	·01
1	8	7	·04	14	6	·08	7	1	·05	4	3	·04	2	1	·02	3	2	·06
2	1	—	·01	8	5	·05	6	2	·04	1	—	·01	1	—	·01	1	1	·02
3	1	1	·01	3	1	·02	4	—	·03	1	—	·01	1	—	·01	—	—	—
4	—	—	—	2	—	·01	4	—	·03	1	—	·01	1	—	·01	—	—	—
5	—	—	—	2	—	·01	4	1	·04	1	—	·01	1	—	·02	—	—	—
6	—	—	—	2	—	·01	3	—	·03	1	—	·01	1	—	·02	—	—	—
7	—	—	—	2	2	·02	3	—	·03	1	—	·01	—	—	—	—	—	—
8	—	—	—	—	—	—	3	—	·03	1	—	·01	—	—	—	—	—	—
9	—	—	—	—	—	—	3	1	·03	1	—	·01	—	—	—	—	—	—
10	—	—	—	—	—	—	2	1	·02	1	—	·01	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Total	13	8	·07	37	14	·22	41	6	·35	16	3	·18	7	2	·09	5	3	·09

(x) FEMALES—INCIPIENT CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	40			56			35			13			6			7		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	20	—	·08	23	—	·12	15	—	·09	7	—	·05	2	—	·02	3	—	·04
1	37	—	·16	56	—	·29	35	3	·22	12	—	·10	6	—	·06	7	—	·11
2	37	1	·16	56	—	·30	32	1	·21	12	—	·10	6	—	·06	7	1	·11
3	36	1	·16	56	1	·31	31	—	·22	12	—	·11	6	—	·06	6	—	·10
4	34	—	·16	55	3	·32	31	1	·23	12	—	·11	6	—	·07	6	—	·11
5	34	—	·17	52	2	·31	30	1	·23	12	1	·12	6	—	·07	6	1	·12
6	34	—	·17	50	1	·32	29	2	·23	11	—	·11	6	—	·07	5	—	·11
7	28	1	·15	44	—	·29	25	—	·21	11	—	·11	5	—	·06	5	—	·11
8	19	—	·11	31	—	·22	19	—	·17	8	—	·09	4	—	·05	4	1	·10
9	16	—	·09	21	—	·15	11	—	·10	6	—	·07	4	—	·06	3	—	·08
10	11	—	·07	14	—	·11	8	—	·08	4	1	·05	2	—	·03	—	—	—
11	7	—	·04	9	—	·07	4	—	·04	3	—	·04	2	—	·03	—	—	—
12	1	—	·01	1	—	·01	2	—	·02	1	—	·01	—	—	—	—	—	—
Total	314	3	1·53	468	7	2·82	272	8	2·05	111	2	1·07	55	—	·64	52	3	·99

ADIRONDACK. "Second Thousand" (*continued*).

(xi) FEMALES—ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	65			102			65			43			18			11		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	33	—	·14	54	—	·26	38	—	·23	22	—	·16	8	—	·08	6	—	·09
1	65	6	·27	102	15	·52	65	6	·41	43	7	·34	17	2	·17	11	—	·17
2	59	5	·26	86	12	·46	59	2	·39	36	5	·30	15	2	·16	11	2	·18
3	53	4	·24	73	7	·41	57	10	·40	31	1	·28	13	2	·14	9	—	·16
4	49	1	·23	66	10	·38	47	4	·34	30	2	·28	11	—	·12	9	—	·16
5	48	3	·23	56	7	·34	43	2	·33	28	3	·27	11	—	·13	9	—	·18
6	45	4	·23	47	1	·30	41	1	·33	25	3	·25	10	—	·12	9	—	·19
7	33	3	·18	43	4	·29	38	1	·32	18	1	·19	8	1	·10	8	—	·18
8	21	—	·12	31	3	·22	29	3	·26	15	—	·16	4	—	·05	6	—	·15
9	17	1	·10	18	1	·13	15	1	·14	11	—	·12	3	—	·04	4	—	·11
10	11	—	·07	12	—	·09	7	1	·07	7	—	·08	2	—	·03	4	1	·11
11	6	—	·04	6	—	·04	2	—	·02	4	—	·05	1	—	·02	1	—	·03
12	3	—	·02	4	—	·03	1	—	·01	2	—	·02	1	—	·02	—	—	—
Doubtful	—	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	443	29	2·13	598	62	3·47	442	31	3·25	272	22	2·50	104	7	1·18	87	3	1·71

(xii) FEMALES—FAR ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	8			9			6			3			2			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	4	1	·02	2	—	·01	1	—	·01	2	—	·01	1	—	·01	1	—	·01
1	7	3	·03	9	5	·05	6	3	·04	3	—	·02	2	—	·02	2	1	·03
2	4	—	·02	4	3	·02	2	—	·02	3	3	·03	2	1	·02	1	—	·02
3	4	1	·02	1	1	·01	2	1	·02	—	—	—	1	—	·01	1	—	·02
4	3	1	·01	—	—	—	1	1	·01	—	—	—	1	—	·01	1	—	·02
5	2	1	·01	—	—	—	—	—	—	—	—	—	1	—	·01	1	1	·02
6	1	1	·01	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
7	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
8	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
Doubtful	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Total	25	8	·12	16	9	·09	12	6	·10	8	3	·06	11	1	·11	7	2	·12

ADIRONDACK. "Third Thousand."

(xiii) MALES—INCIPIENT CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	67			77			44			26			4			4		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	32	—	·14	38	—	·21	22	—	·14	11	—	·09	2	—	·02	2	—	·03
1	64	1	·30	76	2	·44	42	3	·29	26	1	·24	4	—	·05	4	—	·08
2	46	2	·23	64	1	·38	35	1	·25	18	1	·18	3	—	·04	3	—	·06
3	38	1	·20	50	2	·31	28	—	·22	12	—	·13	3	—	·04	3	—	·07
4	26	1	·14	36	—	·23	21	—	·17	10	2	·11	3	—	·04	3	—	·07
5	12	—	·07	22	—	·14	11	1	·10	5	—	·06	3	—	·04	3	—	·07
6	5	—	·03	8	—	·05	3	—	·03	2	—	·02	1	—	·02	1	—	·03
7	1	—	·01	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
Total	224	5	1·12	295	5	1·77	162	5	1·20	85	4	·84	19	—	·25	19	—	·41

(xiv) MALES—ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	65			77			67			42			21			25		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed of Risk	Actual No. of Deaths	Expected No. of Deaths
0	37	—	·16	41	—	·23	34	—	·22	21	—	·18	12	—	·14	12	—	·22
1	62	7	·29	69	2	·40	65	2	·44	39	2	·36	20	3	·24	23	2	·46
2	48	2	·24	57	3	·34	43	3	·31	30	1	·30	13	—	·17	18	2	·38
3	32	2	·17	34	3	·21	32	1	·25	21	4	·22	9	—	·12	16	2	·35
4	18	2	·10	22	3	·14	25	4	·21	11	1	·12	7	1	·10	12	2	·28
5	11	—	·06	15	—	·10	11	1	·10	10	2	·12	2	—	·03	5	1	·13
6	7	—	·04	4	—	·03	6	—	·06	4	—	·05	2	—	·03	2	—	·05
7	2	—	·01	2	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
8	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	217	13	1·07	245	11	1·47	216	11	1·59	136	10	1·35	65	4	·83	88	9	1·87

(xv) MALES—FAR ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	—			1			—			1			2			3		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0				1	—	·00				1	—	·01	1	—	·01	1	—	·03
1				1	—	·01				1	—	·01	2	1	·02	3	—	·06
2				—	—	—				—	—	—	1	1	·01	2	—	·04
3				—	—	—				—	—	—	—	—	—	1	—	·02
4				—	—	—				—	—	—	—	—	—	1	1	·02
Total	—	—	—	2	—	·01	—	—	—	2	—	·02	4	2	·04	8	1	·17

ADIRONDACK. "Third Thousand" (*continued*).

(xvi) FEMALES—INCIPIENT CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	35			75			46			27			12			10		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	17	—	·07	39	—	·19	23	—	·14	14	—	·11	6	—	·06	4	—	·07
1	33	—	·14	71	—	·36	46	1	·29	27	—	·22	11	—	·11	9	—	·14
2	29	—	·12	58	2	·31	34	—	·22	22	—	·19	8	—	·08	7	—	·11
3	23	1	·10	41	—	·23	30	—	·21	18	—	·16	6	—	·06	5	—	·09
4	17	—	·08	28	1	·16	23	—	·17	16	—	·15	4	—	·04	4	—	·07
5	10	—	·05	17	—	·10	14	—	·11	9	—	·09	2	—	·03	3	—	·06
6	4	—	·02	5	—	·03	7	—	·06	2	—	·02	1	—	·01	1	—	·02
7	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	133	1	·58	259	3	1·38	178	1	1·21	108	—	·94	38	—	·39	33	—	·56

(xvii) FEMALES—ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	47			78			60			34			14			13		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	29	—	·12	46	—	·22	34	—	·21	20	—	·15	6	—	·06	8	1	·12
1	46	2	·19	75	5	·38	57	3	·36	33	—	·27	14	1	·14	11	—	·17
2	40	2	·17	58	4	·31	41	4	·27	26	1	·22	8	—	·08	7	1	·11
3	30	5	·14	38	4	·21	24	—	·17	20	2	·18	6	—	·06	6	—	·10
4	19	3	·09	21	1	·12	11	1	·08	10	1	·09	4	—	·04	5	—	·09
5	10	—	·05	15	—	·09	6	—	·05	5	—	·05	1	1	·01	3	—	·06
6	4	—	·02	4	—	·03	3	—	·02	2	—	·02	—	—	—	—	—	—
7	—	—	—	1	—	·01	1	—	·01	—	—	—	—	—	—	—	—	—
Total	178	12	·78	258	14	1·37	177	8	1·17	116	4	·98	39	2	·39	40	2	·65

(xviii) FEMALES—FAR ADVANCED CASES.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	—			—			2			2			1			—		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0							1	—	·01	1	—	·01	1	—	·01			
1							2	1	·01	2	—	·02	1	—	·01			
2							—	—	—	2	—	·02	1	—	·01			
3							—	—	—	1	—	·01	—	—	—			
4							—	—	—	1	—	·01	—	—	—			
Total	—	—	—	—	—	—	3	1	·02	7	—	·07	3	—	·03	—	—	—

ADIRONDACK. "First Thousand."

(xix) MALES—APPARENTLY CURED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	15			15			16			3			2			3		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	15	—	·07	15	1	·09	16	—	·11	3	—	·03	2	—	·02	3	—	·06
1	15	—	·07	14	—	·08	16	—	·12	3	—	·03	2	—	·03	3	—	·06
2	15	—	·08	14	1	·09	16	—	·12	3	—	·03	2	—	·03	3	—	·07
3	15	—	·08	13	—	·08	16	—	·13	3	—	·03	2	—	·03	3	1	·07
4	15	1	·08	13	1	·08	16	—	·14	3	1	·03	2	—	·03	2	—	·05
5	14	1	·08	12	—	·08	15	—	·14	2	—	·02	2	—	·03	2	—	·05
6	13	1	·08	12	—	·09	15	—	·15	2	—	·03	2	—	·03	2	—	·06
7	11	1	·07	12	—	·09	15	1	·16	2	—	·03	2	—	·03	2	—	·06
8	10	1	·06	12	1	·10	14	—	·15	2	—	·03	2	—	·04	2	1	·06
9	9	—	·06	11	—	·10	12	1	·14	2	—	·03	2	—	·04	1	—	·04
10	9	—	·06	11	1	·10	11	—	·13	2	—	·03	2	—	·04	—	—	—
11	9	—	·06	10	—	·10	11	—	·14	2	—	·03	2	—	·04	—	—	—
12	7	—	·05	8	—	·08	10	—	·13	2	—	·03	1	—	·02	—	—	—
13	5	—	·04	5	—	·06	7	—	·10	1	—	·02	1	—	·02	—	—	—
14	5	—	·04	5	—	·06	5	—	·07	—	—	—	—	—	—	—	—	—
15	4	—	·04	4	—	·05	5	—	·08	—	—	—	—	—	—	—	—	—
16	3	—	·03	3	—	·04	5	—	·08	—	—	—	—	—	—	—	—	—
17	2	—	·02	1	—	·01	5	—	·09	—	—	—	—	—	—	—	—	—
18	2	—	·02	1	—	·01	4	—	·07	—	—	—	—	—	—	—	—	—
19	1	—	·01	1	1	·01	2	—	·04	—	—	—	—	—	—	—	—	—
20 & over	—	—	—	—	—	—	4	—	·09	—	—	—	—	—	—	—	—	—
Doubtful	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Total	179	6	1·10	177	6	1·40	220	3	2·38	32	1	·40	26	—	·43	23	2	·58

(xx) MALES—ARRESTED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	36			27			31			17			11			4		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	36	1	·17	27	3	·16	31	3	·21	17	—	·16	11	2	·13	4	—	·08
1	34	2	·17	24	4	·14	27	—	·19	17	3	·17	9	1	·11	4	1	·08
2	30	1	·16	20	3	·12	27	3	·21	11	1	·12	8	2	·10	3	1	·06
3	28	1	·15	16	3	·10	22	4	·18	9	—	·10	6	1	·08	2	—	·03
4	26	1	·15	13	3	·09	16	1	·14	9	1	·10	4	2	·06	1	—	·03
5	24	2	·14	10	—	·07	15	—	·14	7	—	·09	2	—	·03	1	—	·03
6	19	3	·11	10	—	·07	15	—	·15	7	—	·09	2	—	·04	1	1	·04
7	13	1	·08	10	1	·08	15	—	·16	7	1	·09	2	—	·04	—	—	—
8	11	1	·07	9	1	·07	15	—	·16	5	—	·07	2	—	·04	—	—	—
9	9	—	·06	8	—	·07	15	2	·17	5	—	·07	2	—	·04	—	—	—
10	9	—	·06	8	—	·07	12	1	·15	5	—	·08	2	—	·04	—	—	—
11	9	—	·07	8	—	·08	11	—	·13	5	—	·08	2	1	·05	—	—	—
12	7	—	·05	7	—	·07	10	1	·14	4	—	·07	1	1	·02	—	—	—
13	6	—	·05	6	—	·07	6	—	·08	4	—	·07	—	—	—	—	—	—
14	3	—	·03	5	—	·06	5	—	·07	2	—	·04	—	—	—	—	—	—
15	2	—	·02	4	—	·05	3	—	·05	1	—	·02	—	—	—	—	—	—
16	2	—	·02	4	—	·05	1	—	·02	1	—	·02	—	—	—	—	—	—
17	1	—	·01	3	—	·04	—	—	—	1	—	·02	—	—	—	—	—	—
18	1	—	·01	2	1	·03	—	—	—	1	—	·02	—	—	—	—	—	—
19	1	—	·01	1	—	·01	—	—	—	1	—	·02	—	—	—	—	—	—
20 & over	1	—	·01	1	—	·02	—	—	—	1	—	·03	—	—	—	—	—	—
Doubtful	—	13	—	—	1	—	—	7	—	—	6	—	—	1	—	—	1	—
Total	272	26	1·60	196	20	1·52	246	22	2·35	120	12	1·53	53	11	·78	16	4	·35

ADIRONDACK. "First Thousand" (*continued*).

(xxi) MALES—ACTIVE CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	62			62			52			22			12			11		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	62	25	·29	61	23	·35	52	13	·36	22	2	·20	12	5	·15	11	2	·22
1	24	6	·12	33	6	·19	34	9	·24	19	4	·18	6	1	·07	8	2	·18
2	15	2	·08	25	4	·15	21	3	·16	12	—	·13	5	1	·06	6	2	·13
3	11	1	·06	20	2	·13	17	3	·14	12	2	·13	4	—	·05	4	1	·08
4	10	1	·06	18	2	·12	13	1	·11	9	1	·10	3	—	·05	2	—	·05
5	9	1	·05	15	1	·11	11	2	·10	7	—	·08	3	2	·05	2	—	·06
6	7	—	·04	14	5	·10	8	—	·08	7	1	·09	1	—	·02	2	1	·06
7	7	1	·04	8	—	·06	8	—	·09	5	1	·07	1	—	·02	1	—	·03
8	6	—	·04	8	1	·06	8	—	·09	4	—	·05	1	—	·02	1	—	·03
9	5	1	·04	7	—	·06	8	—	·10	4	—	·05	1	—	·02	1	—	·03
10	4	—	·03	7	—	·06	7	1	·09	4	1	·06	1	—	·02	1	—	·04
11	4	—	·03	7	—	·07	6	—	·08	2	—	·03	1	—	·02	1	—	·04
12	4	—	·03	7	1	·07	5	—	·07	2	—	·03	1	—	·02	1	—	·04
13	4	—	·03	5	1	·06	5	—	·07	2	—	·04	1	—	·02	1	—	·05
14	4	—	·03	4	—	·05	5	—	·07	2	—	·04	1	—	·03	1	—	·05
15	4	—	·04	2	—	·03	5	—	·08	1	—	·02	1	—	·03	1	—	·05
16	2	—	·02	1	1	·02	5	—	·08	1	—	·02	1	—	·03	1	—	·06
17	2	—	·02	—	—	—	5	—	·08	—	—	—	1	—	·03	—	—	—
18	2	—	·02	—	—	—	3	—	·05	—	—	—	1	—	·03	—	—	—
19	1	—	·01	—	—	—	2	—	·04	—	—	—	—	—	—	—	—	—
20 & over	—	—	—	—	—	—	3	—	·06	—	—	—	—	—	—	—	—	—
Doubtful	—	20	—	—	11	—	—	13	—	—	8	—	—	2	—	—	2	—
Total	187	58	1·08	242	58	1·69	231	45	2·24	115	20	1·32	46	11	·74	45	10	1·20

(xxii) FEMALES—APPARENTLY CURED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	28			31			21			18			6			3		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	28	2	·12	31	1	·16	21	—	·13	18	1	·14	6	—	·06	3	—	·05
1	25	—	·11	30	1	·16	21	—	·14	17	1	·14	6	—	·06	3	—	·05
2	25	1	·11	28	1	·16	19	1	·13	16	1	·14	6	—	·06	3	—	·05
3	23	1	·11	27	—	·16	19	—	·14	15	—	·14	6	—	·07	3	—	·05
4	22	—	·11	27	1	·16	19	—	·14	14	—	·14	6	—	·07	3	1	·06
5	22	1	·11	26	—	·16	19	—	·15	14	—	·14	6	—	·07	2	—	·04
6	20	—	·11	26	—	·17	19	—	·16	13	—	·14	5	—	·06	2	—	·05
7	20	—	·11	26	—	·18	18	—	·16	13	1	·14	5	1	·07	2	—	·05
8	20	—	·12	26	1	·19	18	—	·17	12	—	·13	3	—	·04	2	—	·05
9	20	—	·12	24	—	·19	18	—	·18	12	—	·14	3	—	·04	2	—	·06
10	20	—	·13	24	—	·20	18	—	·18	12	—	·15	3	—	·05	2	—	·06
11	19	—	·13	24	—	·21	18	—	·19	11	—	·14	3	—	·05	2	—	·06
12	14	—	·10	24	—	·22	13	—	·14	9	—	·12	3	—	·05	2	—	·07
13	13	—	·09	20	—	·19	11	—	·12	8	—	·11	3	—	·05	1	—	·04
14	10	—	·08	17	1	·17	5	—	·06	7	—	·10	2	—	·04	1	—	·04
15	10	—	·08	16	—	·16	2	—	·02	6	1	·10	1	—	·02	—	—	—
16	8	—	·07	15	—	·16	—	—	—	5	—	·08	—	—	—	—	—	—
17	7	—	·06	12	—	·13	—	—	—	1	—	·02	—	—	—	—	—	—
18	5	—	·05	9	—	·10	—	—	—	1	—	·02	—	—	—	—	—	—
19	2	—	·02	4	—	·05	—	—	—	—	—	—	—	—	—	—	—	—
20 & over	—	—	—	7	—	·09	—	—	—	—	—	—	—	—	—	—	—	—
Doubtful	—	3	—	—	2	—	—	1	—	—	1	—	—	1	—	—	—	—
Total	333	8	1·94	443	8	3·37	258	2	2·21	204	6	2·23	67	2	·86	33	1	·78

ADIRONDACK. "First Thousand" (*continued*).

(xxiii) FEMALES—ARRESTED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	30			35			32			6			10			10		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	29	3	·12	35	2	·18	32	3	·20	6	—	·05	10	—	·10	10	1	·15
1	25	2	·11	32	4	·17	28	1	·19	6	—	·05	10	—	·10	9	—	·14
2	22	4	·10	28	2	·15	27	4	·19	6	—	·05	10	1	·11	9	—	·15
3	17	—	·08	25	1	·15	23	—	·16	6	—	·06	9	—	·10	9	—	·16
4	17	3	·08	24	2	·14	23	3	·17	6	1	·06	9	1	·10	9	1	·17
5	13	—	·07	20	2	·13	19	1	·15	5	—	·05	7	1	·09	8	1	·16
6	12	1	·06	18	2	·12	18	1	·15	5	—	·05	6	1	·07	6	1	·15
7	11	1	·06	16	—	·11	17	—	·15	5	—	·05	5	—	·06	5	1	·13
8	9	—	·05	16	—	·11	17	—	·16	5	—	·06	5	—	·07	4	1	·11
9	9	—	·06	16	—	·12	17	1	·16	5	—	·06	5	—	·07	3	—	·08
10	8	—	·05	16	1	·13	15	1	·16	5	—	·06	5	—	·07	3	—	·09
11	7	1	·05	14	1	·12	13	2	·14	5	1	·06	5	—	·08	3	—	·10
12	5	—	·04	9	—	·08	10	—	·11	4	—	·05	5	—	·08	3	—	·10
13	4	—	·03	8	1	·08	8	—	·09	2	—	·03	5	—	·09	2	—	·08
14	1	—	·01	5	—	·05	5	—	·06	1	—	·01	5	—	·09	2	—	·08
15	—	—	—	5	—	·05	3	—	·04	1	—	·02	5	—	·10	1	—	·04
16	—	—	—	4	—	·04	3	—	·04	—	—	—	4	1	·11	1	—	·05
17	—	—	—	2	—	·02	3	—	·04	—	—	—	2	—	·06	1	—	·05
18	—	—	—	2	—	·02	3	—	·04	—	—	—	2	—	·06	1	—	·06
19	—	—	—	2	—	·02	—	—	—	—	—	—	1	1	·04	—	—	—
20 & over	—	—	—	2	—	·03	—	—	—	—	—	—	—	—	—	—	—	—
Doubtful	—	5	—	—	4	—	—	3	—	—	—	—	—	2	—	—	1	—
Total	189	20	·97	299	22	2·02	284	20	2·40	73	2	·77	115	8	1·65	89	7	2·05

(xxiv) FEMALES—ACTIVE CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	58			48			44			19			11			6		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	58	24	·24	48	17	·25	44	14	·28	19	7	·15	11	4	·11	6	1	·09
1	26	5	·11	22	4	·12	23	5	·15	11	2	·09	4	2	·04	5	3	·08
2	19	2	·09	16	4	·09	16	3	·11	9	1	·08	1	—	·01	2	—	·02
3	16	—	·08	10	3	·05	11	2	·08	8	2	·07	1	—	·01	1	—	·02
4	16	1	·08	5	—	·03	8	—	·06	5	—	·05	1	—	·01	1	—	·02
5	15	2	·09	5	—	·03	8	1	·06	5	—	·05	1	—	·01	1	—	·03
6	12	2	·07	5	2	·05	6	1	·05	5	—	·06	1	—	·01	1	1	·03
7	10	—	·05	2	—	·01	5	—	·05	5	—	·06	1	—	·01	—	—	—
8	10	2	·06	2	—	·01	5	—	·05	5	—	·06	1	—	·01	—	—	—
9	7	—	·04	2	—	·02	5	—	·05	5	—	·06	1	—	·01	—	—	—
10	7	1	·04	2	—	·02	5	—	·05	5	2	·06	1	—	·02	—	—	—
11	6	—	·04	2	—	·02	5	—	·05	3	—	·04	1	—	·02	—	—	—
12	5	2	·03	2	—	·02	5	—	·05	2	—	·03	1	—	·02	—	—	—
13	2	—	·02	2	—	·02	3	—	·03	1	—	·01	1	—	·02	—	—	—
14	1	—	·01	2	—	·02	3	—	·04	1	—	·02	1	—	·02	—	—	—
15	1	—	·01	2	—	·02	3	—	·04	—	—	—	1	—	·02	—	—	—
16	1	—	·01	2	—	·02	3	—	·04	—	—	—	1	—	·02	—	—	—
17	1	—	·01	2	—	·02	3	—	·04	—	—	—	1	—	·02	—	—	—
18	—	—	—	1	—	·01	2	—	·03	—	—	—	1	—	·03	—	—	—
19	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·03	—	—	—
20 & over	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·03	—	—	—
Doubtful	—	14	—	—	16	—	—	13	—	—	2	—	—	4	—	—	1	—
Total	213	55	1·08	134	46	·81	163	39	1·31	89	16	·89	34	10	·48	17	6	·29

ADIRONDACK. "Second Thousand."

(xxv) MALES—APPARENTLY CURED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	30			37			32			11			6			7		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	30	1	·14	37	—	·21	32	—	·22	11	—	·10	6	—	·07	7	—	·14
1	29	1	·14	37	—	·22	32	—	·23	11	—	·11	6	1	·08	7	1	·15
2	28	1	·14	37	—	·23	32	1	·25	11	—	·11	5	—	·07	6	—	·13
3	27	—	·15	37	2	·23	31	1	·25	11	—	·12	5	—	·07	6	—	·14
4	27	—	·15	35	—	·23	30	—	·26	11	—	·13	5	—	·07	6	—	·15
5	27	2	·16	35	—	·24	30	1	·28	11	—	·13	5	—	·08	6	—	·16
6	25	1	·15	31	1	·22	25	—	·25	11	—	·14	5	—	·08	6	—	·17
7	17	—	·10	26	1	·20	17	1	·18	8	—	·11	4	—	·07	5	—	·15
8	10	—	·06	19	—	·16	11	—	·12	7	—	·10	3	—	·05	5	—	·16
9	7	1	·05	18	1	·16	9	—	·10	6	—	·09	2	—	·04	1	—	·04
10	1	—	·01	7	—	·07	5	—	·06	4	—	·06	1	—	·02	1	—	·04
11	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	228	7	1·25	319	5	2·17	255	4	2·21	102	—	1·20	47	1	·70	56	1	1·43

(xxvi) MALES—ARRESTED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	44			73			51			30			14			14		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	44	4	·21	73	5	·42	51	1	·35	30	—	·28	14	—	·17	14	—	·28
1	40	4	·20	68	7	·40	50	4	·36	30	2	·29	14	1	·18	14	1	·29
2	36	4	·19	61	4	·37	46	3	·36	28	3	·29	13	2	·17	13	—	·29
3	32	4	·17	57	7	·36	43	4	·35	25	2	·27	11	1	·15	13	2	·31
4	28	—	·16	50	3	·33	39	6	·34	22	3	·26	10	1	·15	11	—	·27
5	28	2	·16	47	6	·32	33	1	·30	18	—	·22	9	—	·14	11	2	·28
6	23	1	·14	32	1	·23	26	1	·26	15	—	·19	7	—	·11	9	1	·26
7	16	—	·10	24	2	·19	16	—	·17	13	—	·18	4	—	·07	8	1	·24
8	11	2	·07	16	—	·13	10	—	·11	11	2	·15	3	1	·05	7	—	·23
9	7	1	·05	10	2	·09	6	1	·07	6	—	·09	1	—	·02	3	1	·10
10	3	—	·02	3	—	·03	2	—	·02	3	—	·05	1	—	·02	1	—	·04
11	—	—	—	—	—	—	1	—	·01	1	—	·02	—	—	—	—	—	—
Doubtful	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Total	268	22	1·47	441	37	2·87	323	21	2·70	202	13	2·29	87	6	1·23	104	8	2·59

ADIRONDACK. "Second Thousand" (*continued*).

(xxvii) MALES—ACTIVE CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	31			29			30			14			16			9		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	31	18	·15	29	9	·17	30	5	·21	14	6	·13	16	5	·19	9	4	·18
1	13	1	·06	20	8	·12	25	7	·18	8	—	·07	11	3	·13	5	3	·10
2	12	3	·06	12	1	·07	18	3	·14	7	1	·08	7	1	·10	2	—	·04
3	9	1	·05	11	2	·07	13	2	·11	6	1	·07	6	3	·09	2	—	·05
4	8	1	·05	9	1	·06	11	1	·10	5	—	·06	3	—	·04	2	1	·05
5	7	1	·04	8	—	·05	10	1	·09	5	2	·06	3	—	·05	1	—	·03
6	5	1	·03	8	1	·06	8	1	·08	2	—	·02	1	—	·02	1	—	·03
7	4	—	·02	5	—	·04	7	1	·07	2	—	·03	1	—	·02	1	—	·03
8	4	—	·02	5	—	·04	4	1	·04	2	—	·03	—	—	—	1	—	·03
9	2	—	·01	3	—	·03	3	1	·04	2	—	·03	—	—	—	1	—	·03
10	1	—	·01	2	—	·02	—	—	—	2	—	·03	—	—	—	1	—	·04
11	—	—	—	—	—	—	—	—	—	2	—	·03	—	—	—	1	—	·04
Doubtful	—	—	—	—	—	—	—	1	—	—	1	—	—	1	—	—	—	—
Total	96	26	·50	112	22	·73	129	24	1·06	57	11	·64	48	13	·64	27	8	·65

(xxviii) FEMALES—APPARENTLY CURED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	25			50			25			17			5			3		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	25	—	·11	50	—	·26	25	2	·16	17	—	·14	5	—	·05	3	—	·05
1	25	—	·11	50	—	·27	23	—	·15	17	—	·14	5	—	·05	3	—	·05
2	25	—	·11	50	1	·28	23	—	·16	17	—	·15	5	—	·05	3	—	·05
3	25	—	·12	49	—	·28	23	—	·17	17	—	·16	5	—	·06	3	—	·06
4	25	—	·12	49	4	·30	23	1	·18	17	—	·17	5	—	·06	3	—	·06
5	25	—	·13	44	1	·28	21	1	·17	17	—	·17	5	—	·06	3	—	·06
6	22	1	·12	37	1	·24	20	—	·17	17	—	·18	4	—	·05	2	—	·04
7	13	—	·07	30	—	·21	16	—	·14	13	—	·14	3	—	·04	2	—	·05
8	12	—	·07	19	—	·14	10	—	·09	10	1	·11	2	—	·03	2	—	·05
9	9	—	·05	14	—	·11	5	—	·05	7	—	·08	2	—	·03	1	—	·03
10	5	—	·03	7	—	·06	1	—	·01	4	—	·05	2	—	·03	—	—	—
11	2	—	·01	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
Total	213	1	1·05	400	7	2·44	190	4	1·45	154	1	1·50	43	—	·51	25	—	·50

ADIRONDACK. "Second Thousand" (*continued*).

(xxix) FEMALES—ARRESTED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	38			71			52			24			14			12		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	38	1	·16	71	2	·36	52	3	·33	24	1	·19	14	—	·14	12	—	·18
1	37	—	·16	69	7	·37	49	4	·32	23	3	·20	14	1	·15	12	1	·20
2	37	5	·17	62	4	·34	44	6	·31	20	2	·18	13	2	·14	11	—	·19
3	32	1	·15	58	8	·33	38	5	·28	18	1	·17	11	—	·12	11	—	·20
4	31	—	·15	49	3	·30	33	1	·25	17	2	·17	11	—	·13	10	1	·20
5	30	3	·15	45	1	·29	32	1	·26	15	2	·15	11	—	·13	9	—	·19
6	21	2	·11	38	3	·25	28	2	·24	12	—	·12	10	1	·12	7	—	·16
7	14	—	·07	26	3	·18	18	2	·16	12	—	·13	6	—	·08	5	1	·12
8	10	—	·06	14	—	·10	10	—	·09	10	—	·11	4	—	·06	4	—	·10
9	5	—	·03	10	—	·08	7	1	·07	6	—	·07	2	—	·03	1	1	·03
10	1	—	·01	6	—	·05	6	—	·06	4	—	·05	1	—	·01	—	—	—
11	1	—	·01	1	—	·01	2	—	·02	1	—	·01	1	—	·02	—	—	—
12	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Doubtful	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	257	12	1·23	449	32	2·66	320	25	2·40	162	11	1·55	98	4	1·13	82	4	1·57

(xxx) FEMALES—ACTIVE CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	28			50			32			23			8			8		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	28	8	·12	50	18	·26	32	7	·20	23	6	·18	7	2	·07	8	1	·12
1	19	4	·08	32	8	·17	25	2	·17	17	4	·14	5	3	·05	7	2	·12
2	15	1	·07	23	2	·13	22	7	·16	13	—	·12	2	—	·02	5	—	·09
3	13	1	·06	21	6	·13	15	—	·11	13	1	·12	2	—	·02	5	—	·09
4	11	2	·06	15	1	·09	15	—	·12	12	3	·12	2	—	·02	5	1	·10
5	9	1	·05	14	—	·09	15	2	·12	9	1	·09	2	—	·03	4	—	·08
6	8	1	·04	14	—	·09	11	—	·09	5	1	·05	1	—	·01	4	—	·09
7	6	1	·03	10	—	·07	8	1	·07	2	—	·02	1	—	·01	3	—	·07
8	3	—	·02	6	1	·04	3	—	·03	1	—	·01	1	—	·01	1	—	·03
9	3	—	·02	3	—	·02	2	—	·02	1	—	·01	—	—	—	1	—	·03
10	3	—	·02	3	—	·02	1	—	·01	1	—	·01	—	—	—	1	—	·03
11	1	—	·01	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
Doubtful	—	2	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—
Total	119	21	·58	192	37	1·12	149	20	1·10	98	16	·88	23	5	·24	44	4	·85

ADIRONDACK. "Third Thousand."

(xxxi) MALES—APPARENTLY CURED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	33			28			14			15			2			3		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	33	1	·15	28	—	·16	14	—	·10	15	—	·14	2	—	·02	3	—	·06
1	24	—	·12	23	—	·14	12	—	·09	10	—	·10	1	—	·01	1	—	·02
2	20	—	·10	18	—	·11	7	—	·05	7	—	·07	1	—	·01	1	—	·02
3	12	—	·07	14	—	·09	5	—	·04	5	1	·06	1	—	·01	1	—	·02
4	7	—	·04	7	—	·05	3	—	·03	3	—	·03	1	—	·02	—	—	—
5	2	—	·01	5	—	·03	—	—	—	1	—	·01	—	—	—	—	—	—
6	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	98	1	·49	96	—	·59	41	—	·31	41	1	·41	6	—	·07	6	—	·12

(xxxii) MALES—ARRESTED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	50			98			77			40			14			22		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	50	1	·23	98	1	·56	77	1	·53	40	1	·37	14	—	·17	22	—	·44
1	40	—	·20	85	2	·51	62	1	·45	27	2	·27	11	—	·14	18	—	·38
2	30	2	·16	59	6	·36	52	1	·40	19	2	·20	10	—	·13	17	3	·38
3	21	—	·11	36	3	·23	41	3	·34	12	1	·13	9	—	·12	12	1	·28
4	10	—	·06	23	—	·15	23	2	·20	9	—	·10	5	1	·07	8	2	·20
5	5	—	·03	6	—	·04	8	—	·07	4	—	·05	3	—	·05	3	—	·08
6	—	—	—	2	—	·01	1	—	·01	—	—	—	—	—	—	—	—	—
Total	156	3	·79	309	12	1·86	264	8	2·00	111	6	1·12	52	1	·68	80	6	1·76

(xxxiii) MALES—ACTIVE CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	19			27			22			15			8			9		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	19	5	·09	27	3	·16	22	5	·15	15	3	·14	8	3	·10	9	3	·18
1	13	3	·07	17	2	·10	10	2	·07	12	—	·12	5	—	·06	6	—	·13
2	6	2	·03	8	1	·05	6	—	·05	8	2	·08	2	—	·03	5	1	·11
3	3	—	·02	5	—	·03	4	1	·03	4	1	·04	1	1	·01	4	2	·09
4	2	—	·01	1	—	·01	—	—	—	3	1	·04	—	—	—	1	—	·03
5	2	—	·01	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
6	2	—	·01	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
Total	47	10	·24	59	6	·36	32	8	·30	44	7	·44	16	4	·20	25	6	·54

ADIRONDACK. "Third Thousand" (*continued*).

(xxxiv) FEMALES—APPARENTLY CURED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	12			29			27			12			6			6		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	12	—	·05	29	—	·15	27	—	·17	12	—	·10	6	—	·06	6	—	·09
1	11	—	·05	24	—	·13	19	—	·12	11	—	·09	4	—	·04	5	—	·08
2	11	—	·05	20	—	·11	16	—	·11	10	—	·09	3	—	·03	4	—	·07
3	8	—	·04	18	—	·10	12	—	·09	10	—	·09	2	—	·02	3	—	·06
4	3	—	·01	9	—	·07	8	—	·06	6	—	·06	1	—	·01	3	—	·06
5	3	—	·02	4	—	·03	5	—	·04	2	—	·02	—	—	—	1	—	·02
6	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	48	—	·22	105	—	·60	87	—	·59	51	—	·45	16	—	·16	22	—	·38

(xxxv) FEMALES—ARRESTED CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	32			70			54			39			14			12		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	32	—	·14	70	—	·36	54	—	·34	39	—	·31	14	—	·14	12	—	·18
1	27	1	·12	58	3	·31	44	—	·29	33	—	·28	9	—	·09	8	1	·13
2	20	2	·09	37	—	·21	33	1	·23	28	1	·25	6	—	·06	6	—	·10
3	16	2	·07	28	1	·16	17	—	·12	18	1	·17	6	—	·07	5	—	·09
4	10	—	·05	19	—	·11	9	—	·07	10	1	·10	2	1	·02	3	—	·06
5	2	—	·01	3	—	·02	5	—	·04	3	—	·03	1	—	·01	—	—	—
6	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	107	5	·48	215	4	1·17	163	1	1·10	131	3	1·14	38	1	·39	34	1	·56

(xxxvi) FEMALES—ACTIVE CASES.

Age at Discharge	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Discharged	24			44			23			20			8			3		
No. of years since Discharge	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	24	2	·10	44	5	·22	23	4	·14	20	1	·16	8	1	·08	3	—	·05
1	21	2	·09	31	3	·17	15	4	·10	13	2	·11	5	—	·05	2	—	·03
2	13	2	·06	19	4	·11	6	—	·04	7	—	·06	3	—	·03	2	—	·03
3	6	1	·03	4	—	·02	4	—	·03	3	—	·03	1	—	·01	1	—	·02
4	3	—	·01	3	1	·02	2	—	·01	1	—	·01	—	—	—	—	—	—
5	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	68	7	·30	101	13	·54	50	8	·32	44	3	·37	17	1	·17	8	—	·13

ADIRONDACK. "Special."

(xxxvii) MALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	118			120			83			37			14			14		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	59	—	·26	60	1	·33	42	—	·27	18	—	·16	7	—	·08	7	1	·13
1	115	2	·54	118	2	·68	81	4	·55	37	1	·34	13	—	·16	13	—	·26
2	96	4	·48	105	2	·62	73	1	·53	29	1	·29	12	—	·15	12	2	·24
3	86	5	·45	90	2	·55	66	1	·51	23	—	·24	12	1	·16	10	—	·22
4	71	3	·38	76	6	·48	58	—	·48	21	2	·23	11	—	·15	10	—	·24
5	54	1	·30	56	2	·37	48	2	·42	17	—	·20	11	—	·16	10	—	·25
6	46	5	·26	40	—	·27	39	—	·36	12	—	·15	9	—	·14	8	—	·21
7	35	2	·21	30	—	·22	31	—	·30	10	—	·13	7	—	·11	7	—	·20
8	25	2	·15	24	1	·19	23	2	·24	7	—	·09	4	—	·07	6	—	·18
9	17	1	·11	18	—	·15	14	—	·16	5	—	·07	3	—	·05	6	—	·20
10	12	2	·08	17	—	·15	9	1	·11	3	—	·04	3	—	·06	1	—	·03
11	4	—	·03	11	—	·10	5	—	·06	2	—	·03	2	—	·04	1	—	·04
12	2	—	·02	6	—	·06	1	—	·01	—	—	—	1	—	·02	1	—	·04
13	—	—	—	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—
Total	622	27	3·27	653	16	4·19	490	11	4·00	184	4	1·97	95	1	1·35	92	3	2·24

(xxxviii) MALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	146			190			151			80			50			48		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	73	2	·32	95	2	·53	76	1	·50	40	2	·35	25	—	·29	24	1	·46
1	141	24	·66	180	16	1·04	148	9	1·01	75	7	·69	49	7	·60	45	4	·90
2	106	8	·53	154	16	·92	118	11	·86	61	5	·60	37	5	·47	37	5	·78
3	85	7	·44	118	8	·72	99	15	·77	48	4	·50	28	3	·37	32	2	·71
4	66	6	·36	99	11	·62	78	8	·64	38	4	·42	23	6	·32	28	5	·66
5	55	2	·31	85	7	·56	60	10	·52	34	6	·40	13	1	·19	18	2	·45
6	48	3	·28	67	7	·46	46	3	·42	24	3	·29	12	1	·18	14	2	·37
7	36	3	·21	51	3	·37	32	1	·32	15	—	·19	6	1	·10	10	—	·28
8	24	1	·15	37	2	·29	20	1	·21	13	—	·17	4	—	·07	10	1	·30
9	18	—	·11	28	—	·23	13	1	·14	12	1	·17	3	1	·05	9	—	·29
10	12	1	·08	21	2	·18	10	—	·12	9	—	·13	1	—	·02	6	2	·21
11	6	—	·04	12	—	·11	5	—	·06	5	—	·08	1	—	·02	2	—	·07
12	3	—	·02	5	1	·05	4	1	·05	2	—	·03	—	—	—	—	—	—
13	1	—	·01	2	1	·02	3	—	·04	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	674	57	3·52	954	76	6·10	713	61	5·67	376	32	4·02	202	25	2·68	235	24	5·48

ADIRONDACK. "Special" (*continued*).

(xxxix) MALES—FAR ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	14			17			12			7			5			6		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	7	—	·03	8	—	·05	6	—	·04	4	1	·03	3	—	·03	3	—	·06
1	14	12	·07	17	8	·10	12	3	·08	6	3	·06	5	3	·06	6	2	·12
2	2	1	·01	8	5	·05	9	4	·07	1	—	·01	2	1	·03	3	1	·06
3	1	1	·01	3	1	·02	5	—	·04	1	—	·01	1	1	·01	1	—	·02
4	—	—	—	2	—	·01	5	1	·04	1	—	·01	—	—	—	1	1	·02
5	—	—	—	2	—	·01	4	1	·04	1	—	·01	—	—	—	—	—	—
6	—	—	—	2	—	·01	3	—	·03	1	—	·01	—	—	—	—	—	—
7	—	—	—	2	2	·02	3	—	·03	1	—	·01	—	—	—	—	—	—
8	—	—	—	—	—	—	3	—	·03	1	—	·01	—	—	—	—	—	—
9	—	—	—	—	—	—	3	1	·03	1	—	·01	—	—	—	—	—	—
10	—	—	—	—	—	—	2	1	·02	1	—	·01	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—	—	—	—
Total	24	14	·12	44	16	·27	55	11	·45	21	4	·22	11	5	·13	14	4	·28

(xl) FEMALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	88			137			88			46			18			18		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	44	—	·18	68	—	·34	44	—	·27	23	—	·18	9	—	·09	9	—	·13
1	86	1	·36	133	—	·68	88	4	·56	46	—	·37	17	—	·17	17	—	·26
2	77	1	·34	119	3	·64	73	1	·48	40	—	·34	14	—	·15	15	1	·24
3	70	2	·32	101	2	·56	68	1	·47	36	1	·32	12	—	·13	12	—	·21
4	61	1	·29	86	4	·50	60	1	·44	33	—	·31	10	—	·11	11	—	·20
5	54	1	·27	72	2	·43	50	1	·38	26	1	·25	8	—	·09	10	2	·20
6	47	—	·24	58	1	·37	42	2	·34	17	—	·17	7	—	·08	6	—	·13
7	35	1	·19	47	—	·31	32	—	·27	15	—	·16	5	—	·06	5	—	·11
8	27	—	·15	33	—	·23	25	—	·22	12	—	·13	4	—	·05	4	1	·10
9	22	—	·13	24	—	·18	17	—	·16	10	—	·11	4	—	·06	3	—	·08
10	19	—	·11	17	—	·13	14	1	·14	8	1	·09	2	—	·03	—	—	—
11	15	—	·09	12	—	·10	9	1	·09	7	—	·08	2	—	·03	—	—	—
12	9	—	·06	4	—	·03	6	—	·06	5	—	·06	—	—	—	—	—	—
13	4	—	·03	3	—	·03	2	—	·02	2	—	·03	—	—	—	—	—	—
14	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	570	7	2·76	777	12	4·53	531	12	3·91	280	3	2·60	94	—	1·05	92	4	1·66

ADIRONDACK. "Special" (*continued*).

(xli) FEMALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	121			204			138			80			35			25		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	60	—	·25	102	—	·50	69	—	·42	40	—	·31	18	—	·17	13	1	·18
1	120	12	·50	201	22	1·03	135	11	·85	79	8	·63	35	3	·35	23	—	·35
2	104	9	·45	163	17	·87	111	9	·73	64	6	·54	26	2	·27	19	3	·31
3	86	10	·39	129	14	·72	90	11	·63	53	2	·47	22	3	·24	16	—	·28
4	70	5	·33	102	12	·59	65	5	·47	44	4	·41	17	—	·19	15	—	·28
5	59	4	·29	85	9	·51	56	3	·43	36	4	·35	13	2	·15	13	—	·25
6	50	4	·26	63	1	·40	50	1	·40	29	3	·29	11	—	·13	10	—	·21
7	35	4	·19	57	6	·38	45	2	·38	20	1	·21	9	1	·11	9	—	·21
8	22	—	·12	42	4	·29	34	3	·30	17	—	·18	5	1	·07	7	—	·17
9	18	1	·10	28	1	·20	20	1	·19	13	—	·14	3	—	·04	5	—	·13
10	12	—	·07	22	1	·17	12	1	·12	9	—	·10	2	—	·03	5	1	·14
11	7	—	·04	15	1	·13	7	—	·07	6	—	·07	1	—	·01	2	—	·06
12	4	—	·03	12	—	·11	4	1	·04	4	—	·05	1	—	·02	1	—	·03
13	1	—	·01	3	—	·03	1	—	·01	1	—	·01	—	—	—	1	—	·03
Total	648	49	3·03	1024	88	5·93	699	48	5·04	415	28	3·76	163	12	1·78	139	5	2·63

(xlii) FEMALES—FAR ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	9			10			11			8			4			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	5	1	·02	5	—	·02	6	—	·03	4	—	·03	2	—	·02	1	—	·01
1	8	3	·03	10	6	·05	11	6	·07	8	1	·06	4	1	·04	2	1	·03
2	5	1	·02	4	3	·02	4	1	·03	7	3	·06	3	1	·03	1	—	·02
3	4	1	·02	1	1	·01	3	2	·02	3	—	·03	1	—	·01	1	—	·02
4	3	1	·01	—	—	—	1	1	·01	3	2	·03	1	—	·01	1	—	·02
5	2	1	·01	—	—	—	—	—	—	—	—	—	1	—	·01	1	1	·02
6	1	1	·01	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
7	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
8	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
Total	28	9	·12	20	10	·10	25	10	·16	25	6	·21	15	2	·15	7	2	·12

ADIRONDACK. "Special."

Cases in which T. B. known to have been present in sputum.

(xliii) MALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	64			66			47			24			6			7		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	32	—	·14	33	—	·18	24	—	·15	12	—	·11	3	—	·04	4	1	·07
1	62	1	·29	66	2	·38	46	4	·32	24	—	·22	5	—	·06	6	—	·12
2	54	3	·27	61	2	·36	41	1	·30	18	1	·18	4	—	·05	6	1	·13
3	46	2	·24	48	2	·29	38	—	·29	14	—	·15	4	—	·05	5	—	·11
4	39	2	·21	40	3	·25	33	—	·27	13	2	·14	4	—	·05	5	—	·12
5	30	1	·17	30	1	·20	26	—	·23	10	—	·12	4	—	·06	5	—	·12
6	26	5	·15	19	—	·13	23	—	·21	8	—	·10	3	—	·05	4	—	·11
7	17	1	·10	16	—	·12	17	—	·17	7	—	·09	2	—	·03	4	—	·11
8	13	2	·08	13	1	·10	12	2	·12	6	—	·08	1	—	·02	3	—	·09
9	10	1	·06	9	—	·07	6	—	·07	5	—	·07	1	—	·02	3	—	·10
10	9	2	·06	8	—	·07	3	1	·04	3	—	·04	1	—	·02	—	—	—
11	3	—	·02	5	—	·05	2	—	·02	2	—	·03	1	—	·02	—	—	—
12	1	—	·01	3	—	·03	—	—	—	—	—	—	1	—	·02	—	—	—
13	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	342	20	1·80	352	11	2·24	271	8	2·19	122	3	1·33	34	—	·49	45	2	1·08

(xliv) MALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	128			176			143			68			47			42		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	64	2	·29	88	2	·44	72	1	·47	34	2	·30	24	—	·27	21	1	·40
1	121	22	·57	166	16	·96	139	9	·95	64	6	·59	45	7	·55	38	3	·76
2	94	7	·47	142	16	·77	112	11	·87	52	5	·51	35	5	·45	34	5	·71
3	78	6	·40	109	8	·67	93	14	·72	40	3	·42	27	2	·36	29	2	·64
4	61	6	·33	91	11	·57	73	8	·60	33	4	·36	23	6	·32	25	5	·59
5	50	2	·28	78	7	·51	56	10	·49	29	6	·34	13	1	·19	15	2	·37
6	43	3	·25	60	6	·41	43	3	·40	19	3	·23	12	1	·18	12	2	·32
7	32	1	·19	47	3	·34	30	1	·30	11	—	·14	6	1	·10	8	—	·23
8	22	1	·13	33	1	·26	19	1	·20	9	—	·12	4	—	·07	8	1	·24
9	18	—	·11	27	—	·22	12	1	·13	8	1	·10	3	1	·05	7	—	·23
10	12	1	·08	20	2	·17	9	—	·10	5	—	·07	1	—	·02	4	2	·14
11	6	—	·04	11	—	·10	4	—	·05	2	—	·03	1	—	·02	1	—	·04
12	3	—	·02	5	1	·05	4	1	·05	—	—	—	—	—	—	—	—	—
13	1	—	·01	2	1	·02	3	—	·04	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	605	51	3·17	879	74	5·49	670	60	5·38	306	30	3·21	194	24	2·58	202	23	4·67

ADIRONDACK. "Special" (*continued*).

Cases in which T. B. known to have been present in sputum.

(xlv) FEMALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	31			52			35			20			9			4		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	16	—	·06	26	—	·13	18	—	·11	10	—	·08	5	—	·04	2	—	·03
1	28	1	·12	51	—	·26	35	2	·22	19	—	·15	8	—	·08	4	—	·06
2	26	1	·11	47	3	·25	30	—	·20	18	—	·15	7	—	·07	4	—	·07
3	24	2	·11	39	1	·22	29	1	·20	18	1	·16	6	—	·06	4	—	·07
4	20	1	·09	30	4	·17	22	1	·16	17	—	·16	5	—	·06	4	—	·07
5	17	1	·08	24	1	·15	17	—	·13	14	1	·14	4	—	·05	3	—	·06
6	14	—	·07	18	—	·11	13	—	·10	6	—	·06	4	—	·05	2	—	·04
7	11	—	·06	15	—	·10	10	—	·08	5	—	·05	3	—	·04	2	—	·04
8	8	—	·04	9	—	·06	8	—	·07	5	—	·05	3	—	·04	2	—	·05
9	8	—	·05	6	—	·04	7	—	·07	5	—	·06	3	—	·04	1	—	·03
10	8	—	·05	6	—	·05	6	1	·06	5	1	·06	1	—	·01	—	—	—
11	4	—	·03	5	—	·04	4	1	·04	4	—	·05	1	—	·02	—	—	—
12	3	—	·02	2	—	·02	3	—	·03	3	—	·04	—	—	—	—	—	—
13	1	—	·01	2	—	·02	1	—	·01	1	—	·01	—	—	—	—	—	—
14	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	188	6	·90	280	9	1·62	204	6	1·49	130	3	1·22	50	—	·56	28	—	·52

(xlvi) FEMALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	96			170			109			61			28			16		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	48	—	·20	85	—	·42	55	—	·33	31	—	·23	14	—	·14	8	1	·12
1	95	11	·40	165	22	·85	107	11	·68	60	8	·48	27	3	·27	15	—	·23
2	81	9	·35	134	16	·72	87	9	·58	46	6	·39	22	2	·23	14	3	·23
3	65	9	·29	109	13	·60	73	9	·51	38	2	·34	19	3	·20	11	—	·19
4	53	5	·25	85	12	·49	52	4	·38	32	3	·30	14	—	·16	10	—	·18
5	46	4	·23	71	9	·43	44	3	·34	25	4	·24	10	2	·11	8	—	·16
6	37	4	·19	50	1	·32	38	1	·30	19	3	·19	8	—	·10	5	—	·11
7	26	4	·14	46	6	·30	34	2	·29	12	1	·13	7	1	·09	4	—	·09
8	16	—	·09	35	4	·24	23	3	·20	11	—	·12	4	—	·05	3	—	·07
9	13	1	·08	24	1	·17	12	1	·11	8	—	·09	3	—	·04	2	—	·05
10	8	—	·05	20	1	·15	8	1	·08	5	—	·06	2	—	·03	2	—	·06
11	4	—	·02	14	1	·11	4	—	·04	4	—	·05	1	—	·01	1	—	·03
12	2	—	·01	12	—	·10	1	1	·01	2	—	·02	1	—	·02	1	—	·03
13	1	—	·01	3	—	·03	—	—	—	1	—	·01	—	—	—	1	—	·03
Total	495	47	2·31	853	86	4·93	538	45	3·85	294	27	2·65	132	11	1·45	85	4	1·58

ADIRONDACK. "Special."

Cases in which Haemoptysis occurred.

(xlvii) MALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	45			50			38			18			2			4		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	23	—	·10	25	—	·14	19	—	·12	9	—	·08	1	—	·01	2	—	·04
1	44	1	·21	49	—	·28	37	2	·25	18	1	·17	2	—	·02	4	—	·08
2	41	1	·20	46	1	·27	34	1	·25	13	1	·13	2	—	·03	4	1	·08
3	35	3	·18	40	2	·24	31	1	·24	11	—	·12	2	—	·03	3	—	·07
4	30	1	·16	34	4	·22	27	—	·22	11	2	·12	2	—	·03	3	—	·07
5	22	1	·12	23	2	·15	22	2	·19	8	—	·10	2	—	·03	3	—	·08
6	19	3	·11	17	—	·12	17	—	·16	6	—	·07	1	—	·01	3	—	·08
7	13	1	·08	12	—	·09	15	—	·15	5	—	·06	1	—	·02	2	—	·06
8	10	—	·06	11	1	·08	11	—	·11	4	—	·05	—	—	—	2	—	·06
9	8	1	·05	8	—	·07	8	—	·09	3	—	·04	—	—	—	2	—	·06
10	7	2	·05	7	—	·06	5	1	·06	2	—	·03	—	—	—	—	—	—
11	3	—	·02	5	—	·05	3	—	·04	1	—	·01	—	—	—	—	—	—
12	1	—	·01	5	—	·05	1	—	·01	—	—	—	—	—	—	—	—	—
13	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	256	14	1·35	283	10	1·83	230	7	1·89	91	4	·98	13	—	·18	28	1	·68

(xlviii) MALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	74			100			64			31			27			21		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	37	1	·17	50	2	·28	32	—	·21	16	—	·13	14	—	·16	11	1	·20
1	72	16	·33	96	12	·55	63	4	·43	30	1	·28	27	4	·33	20	3	·40
2	49	4	·24	80	9	·47	51	4	·37	25	2	·25	23	3	·29	14	2	·29
3	42	4	·22	64	3	·39	44	8	·34	21	3	·22	17	3	·23	12	1	·24
4	32	2	·17	55	8	·35	36	5	·30	13	2	·14	12	5	·17	10	3	·23
5	27	1	·15	45	4	·30	27	3	·24	11	2	·13	6	—	·09	5	1	·13
6	25	2	·14	34	2	·23	23	1	·21	8	—	·10	6	—	·09	3	—	·08
7	17	1	·10	29	1	·21	16	1	·16	7	—	·09	2	—	·03	3	—	·09
8	11	1	·07	21	—	·16	8	—	·08	6	—	·08	2	—	·03	3	—	·09
9	8	—	·05	15	—	·12	5	—	·06	5	—	·07	2	—	·04	3	1	·10
10	7	—	·05	11	1	·10	4	—	·05	4	—	·06	1	—	·02	1	—	·03
11	4	—	·03	6	—	·05	2	1	·02	2	—	·03	1	—	·02	—	—	—
12	2	—	·01	3	—	·03	1	—	·01	1	—	·02	—	—	—	—	—	—
13	1	—	·01	2	1	·02	1	—	·01	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	334	32	1·74	511	43	3·26	314	27	2·50	149	10	1·60	113	15	1·50	85	12	1·88

ADIRONDACK. "Special" (*continued*).

Cases in which Haemoptysis occurred.

(xlix) MALES—FAR ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	6			10			6			3			1			1		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	3	—	·01	5	—	·03	3	—	·02	2	1	·01	1	—	·01	1	—	·01
1	6	—	·03	10	6	·06	6	1	·04	1	—	·01	1	1	·01	1	—	·02
2	6	5	·03	3	2	·02	5	4	·04	1	—	·01	—	—	—	1	—	·02
3	1	1	·01	1	—	·01	1	—	·01	1	—	·01	—	—	—	1	—	·02
4	—	—	—	1	—	·01	1	1	·01	1	—	·01	—	—	—	1	1	·02
5	—	—	—	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
6	—	—	—	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
7	—	—	—	1	1	·01	—	—	—	1	—	·01	—	—	—	—	—	—
8	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
9	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
10	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
11	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—	—	—	—
Total	16	6	·08	23	9	·16	16	6	·12	14	1	·15	2	1	·02	5	1	·09

(l) FEMALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	26			36			24			17			4			6		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	13	—	·05	18	—	·09	12	—	·07	8	—	·07	2	—	·02	3	—	·04
1	24	—	·10	35	—	·18	24	1	·15	16	—	·13	4	—	·04	6	—	·09
2	22	—	·10	34	1	·18	19	—	·13	13	—	·11	4	—	·04	5	—	·08
3	19	1	·09	30	—	·17	18	1	·12	12	—	·11	4	—	·04	5	—	·09
4	15	—	·07	26	1	·15	16	—	·12	12	—	·11	4	—	·04	5	—	·09
5	14	1	·07	23	2	·14	15	1	·11	9	—	·09	4	—	·05	4	1	·08
6	12	—	·06	17	—	·11	14	—	·11	5	—	·05	4	—	·05	2	—	·04
7	10	—	·05	17	—	·11	14	—	·12	4	—	·04	4	—	·05	1	—	·02
8	7	—	·04	8	—	·06	13	—	·12	3	—	·03	3	—	·04	1	1	·02
9	5	—	·03	7	—	·05	7	—	·07	3	—	·03	3	—	·04	—	—	—
10	5	—	·03	5	—	·04	7	1	·07	1	—	·01	2	—	·03	—	—	—
11	4	—	·03	4	—	·03	3	—	·03	1	—	·01	2	—	·03	—	—	—
12	3	—	·02	1	—	·01	1	—	·01	—	—	—	—	—	—	—	—	—
13	2	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	155	2	·75	225	4	1·32	164	4	1·24	87	—	·79	40	—	·47	32	2	·55

ADIRONDACK. "Special" (*continued*).

Cases in which Haemoptysis occurred.

(li) FEMALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	50			81			42			33			9			13		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	25	—	·10	40	—	·20	21	—	·13	16	—	·13	5	—	·04	6	—	·10
1	50	5	·21	77	13	·39	41	6	·26	33	6	·27	9	3	·09	13	—	·20
2	43	6	·19	58	3	·31	32	4	·21	27	3	·23	6	—	·06	12	1	·19
3	35	4	·16	52	5	·29	25	3	·17	22	1	·20	5	—	·05	11	—	·19
4	29	2	·14	41	5	·24	17	—	·12	18	2	·17	5	—	·06	11	—	·20
5	27	—	·13	34	3	·21	16	—	·12	15	1	·15	4	1	·05	10	—	·20
6	26	1	·13	26	4	·16	15	—	·12	13	2	·13	3	—	·04	9	—	·19
7	20	4	·11	21	—	·14	14	—	·12	6	—	·06	2	—	·02	8	—	·18
8	12	1	·07	17	—	·12	11	—	·10	6	—	·06	2	—	·03	6	—	·15
9	9	—	·05	12	—	·09	7	—	·07	4	—	·04	1	—	·01	4	—	·11
10	5	—	·03	9	1	·07	3	—	·03	2	—	·02	1	—	·01	4	1	·11
11	2	—	·01	6	—	·05	3	—	·03	1	—	·01	1	—	·02	2	—	·06
12	1	—	·01	6	—	·05	1	1	·01	—	—	—	1	—	·02	1	—	·03
13	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	1	—	·03
Total	284	23	1·34	400	34	2·33	206	14	1·49	163	15	1·47	45	4	·50	98	2	1·94

(lii) FEMALES—FAR ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	4			3			2			2			2			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	2	—	·01	1	—	·01	1	—	·01	1	—	·01	1	—	·01	1	—	·01
1	4	1	·02	3	1	·01	2	—	·01	2	—	·02	2	—	·02	2	1	·03
2	3	1	·01	2	2	·01	2	1	·01	2	1	·02	2	—	·02	1	—	·02
3	2	—	·01	—	—	—	1	1	·01	1	—	·01	1	—	·01	1	—	·02
4	2	1	·01	—	—	—	—	—	—	1	—	·01	1	—	·01	1	—	·02
5	1	1	·01	—	—	—	—	—	—	—	—	—	1	—	·01	1	1	·02
6	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
7	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
8	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
Total	14	4	·07	6	3	·03	6	2	·04	7	1	·07	11	—	·11	7	2	·12

ADIRONDACK. "Special."

Cases in which one or both parents were known to have had Tuberculosis.

(liii) MALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	11			3			2			3			1			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	5	—	·02	2	—	·01	1	—	·01	1	—	·01	1	—	·01	1	—	·01
1	11	—	·05	3	—	·02	2	—	·01	3	—	·03	1	—	·01	2	—	·04
2	11	—	·06	3	—	·02	2	—	·01	3	—	·03	1	—	·01	2	—	·04
3	11	1	·06	3	—	·02	2	—	·01	3	—	·03	1	—	·01	2	—	·04
4	10	—	·05	3	1	·02	2	—	·02	3	1	·03	1	—	·01	2	—	·05
5	10	—	·06	2	—	·01	2	—	·02	2	—	·02	1	—	·01	2	—	·05
6	10	2	·06	2	—	·01	2	—	·02	2	—	·02	1	—	·02	2	—	·05
7	7	—	·04	1	—	·01	1	—	·01	2	—	·03	1	—	·02	1	—	·03
8	7	1	·04	1	—	·01	1	—	·01	—	—	—	1	—	·02	1	—	·03
9	5	1	·03	1	—	·01	—	—	—	—	—	—	1	—	·02	1	—	·03
10	2	1	·01	1	—	·01	—	—	—	—	—	—	1	—	·02	—	—	—
11	1	—	·01	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—
12	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·02	—	—	—
Total	90	6	·49	22	1	·15	15	—	·12	19	1	·20	13	—	·20	16	—	·37

(liv) MALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	15			22			12			8			2			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	7	—	·03	11	—	·06	6	—	·04	4	—	·03	1	—	·01	1	—	·02
1	15	3	·07	22	5	·13	12	1	·08	8	1	·07	2	—	·02	2	1	·02
2	11	1	·06	17	1	·10	11	1	·08	7	—	·07	2	—	·02	1	—	·02
3	10	1	·05	16	—	·10	10	2	·08	7	1	·07	2	—	·03	1	—	·02
4	9	—	·05	16	4	·10	8	1	·07	6	1	·07	2	1	·03	1	—	·02
5	9	—	·05	12	—	·08	7	—	·06	5	—	·06	1	—	·01	1	—	·03
6	9	—	·05	12	1	·08	7	1	·06	4	—	·05	1	—	·01	1	—	·03
7	7	1	·04	10	—	·07	6	—	·07	3	—	·04	1	—	·02	1	—	·03
8	5	—	·03	8	1	·06	3	—	·03	3	—	·04	1	—	·02	1	—	·03
9	3	—	·02	7	—	·06	1	—	·01	3	—	·04	1	1	·02	1	—	·03
10	1	—	·01	6	2	·05	1	—	·01	3	—	·04	—	—	—	1	1	·03
11	—	—	—	1	—	·01	—	—	—	1	—	·02	—	—	—	—	—	—
Total	86	6	·46	138	14	·90	72	6	·59	54	3	·60	14	2	·19	12	2	·28

ADIRONDACK. "Special" (*continued*).

Cases in which one or both parents were known to have had Tuberculosis.

(lv) MALES—FAR ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	3			2			1			—			—			—		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	1	—	·01	1	—	·01	1	—	·00	—	—	—	—	—	—	—	—	—
1	3	3	·01	2	1	·01	1	—	·01	—	—	—	—	—	—	—	—	—
2	—	—	—	1	1	·01	1	1	·01	—	—	—	—	—	—	—	—	—
Total	4	3	·02	4	2	·03	3	1	·02	—	—	—	—	—	—	—	—	—

(lvi) FEMALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	14			13			13			3			1			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	7	—	·03	7	—	·03	6	—	·03	2	—	·01	1	—	·01	1	—	·02
1	14	—	·06	13	—	·07	13	—	·08	3	—	·02	1	—	·01	2	—	·03
2	13	—	·06	12	—	·06	13	—	·09	3	—	·02	1	—	·01	2	—	·03
3	13	—	·06	12	—	·07	13	—	·09	3	—	·03	1	—	·01	2	—	·03
4	13	—	·06	12	—	·07	13	—	·09	3	—	·03	1	—	·01	2	—	·04
5	13	—	·06	9	—	·05	13	1	·10	3	—	·03	1	—	·01	2	—	·04
6	11	—	·06	6	—	·04	10	—	·08	2	—	·02	1	—	·01	1	—	·02
7	7	—	·04	5	—	·03	7	—	·06	2	—	·02	—	—	—	—	—	—
8	6	—	·03	4	—	·03	6	—	·05	1	—	·01	—	—	—	—	—	—
9	4	—	·02	4	—	·03	5	—	·05	1	—	·01	—	—	—	—	—	—
10	2	—	·01	2	—	·01	4	—	·04	1	—	·01	—	—	—	—	—	—
11	2	—	·01	1	—	·01	3	1	·03	1	—	·01	—	—	—	—	—	—
12	1	—	·01	1	—	·01	2	—	·02	1	—	·01	—	—	—	—	—	—
13	1	—	·01	—	—	—	2	—	·02	—	—	—	—	—	—	—	—	—
14	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—
Total	107	—	·52	88	—	·51	111	2	·84	26	—	·23	7	—	·07	12	—	·21

ADIRONDACK. "Special" (*continued*).

Cases in which one or both parents were known to have had Tuberculosis.

(lvii) FEMALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	18			28			16			12			4			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	9	—	·04	14	—	·07	8	—	·05	6	—	·05	2	—	·02	1	—	·02
1	18	1	·08	28	3	·14	16	1	·10	12	1	·10	4	1	·04	2	—	·03
2	17	—	·07	25	1	·13	15	—	·10	11	2	·09	3	—	·03	2	—	·03
3	17	—	·08	24	5	·13	15	2	·10	9	1	·08	3	—	·03	2	—	·03
4	17	1	·08	19	3	·11	13	3	·09	8	—	·08	3	—	·03	2	—	·04
5	16	—	·08	16	—	·10	10	2	·08	8	1	·08	2	—	·02	2	—	·04
6	15	1	·08	14	—	·09	8	—	·06	7	—	·07	2	—	·03	2	—	·04
7	13	2	·07	14	1	·09	7	—	·06	6	—	·06	1	—	·01	2	—	·04
8	9	—	·05	11	1	·08	4	—	·04	6	—	·06	1	—	·01	2	—	·05
9	6	—	·03	8	—	·06	2	—	·02	4	—	·04	1	—	·01	2	—	·05
10	4	—	·02	6	—	·05	2	—	·02	3	—	·03	—	—	—	2	1	·06
11	2	—	·01	6	1	·05	1	—	·01	3	—	·04	—	—	—	1	—	·03
12	1	—	·01	5	—	·04	1	—	·01	2	—	·03	—	—	—	1	—	·03
13	—	—	—	1	—	·01	—	—	—	1	—	·01	—	—	—	1	—	·04
Total	144	5	·70	191	15	1·15	102	8	·74	86	5	·82	22	1	·23	24	1	·53

(lviii) FEMALES—FAR ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	2			3			—			1			1			—		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	1	—	·00	1	—	·01	—	—	—	1	—	·00	1	—	·01	—	—	—
1	2	1	·01	3	2	·02	—	—	—	1	—	·01	1	—	·01	—	—	—
2	1	—	·00	1	1	·01	—	—	—	1	1	·01	1	—	·01	—	—	—
3	1	—	·00	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
4	1	—	·01	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
5	1	—	·01	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
6	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
7	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
8	—	—	—	—	—	—	—	—	—	—	—	—	1	—	·01	—	—	—
Total	7	1	·03	5	3	·04	—	—	—	3	1	·02	9	—	·09	—	—	—

ADIRONDACK. "Special."

Cases treated with Tuberculin.

(lix) MALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	26			33			21			11			3			2		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	17	—	·08	22	—	·12	14	—	·09	7	—	·06	2	—	·02	1	—	·02
1	24	—	·11	32	1	·18	20	—	·14	11	—	·10	3	—	·04	2	—	·04
2	17	1	·08	25	1	·15	19	1	·14	6	—	·06	2	—	·02	1	—	·02
3	14	1	·07	18	—	·11	16	—	·12	5	—	·05	2	—	·03	1	—	·02
4	9	1	·05	13	2	·08	11	—	·09	4	—	·04	2	—	·03	1	—	·02
5	8	1	·04	8	1	·05	7	—	·06	3	—	·04	2	—	·03	1	—	·02
6	4	—	·02	5	—	·03	5	—	·05	1	—	·01	—	—	—	—	—	—
7	4	—	·02	5	—	·04	5	—	·05	1	—	·01	—	—	—	—	—	—
8	4	—	·02	5	1	·04	5	1	·05	1	—	·01	—	—	—	—	—	—
9	4	—	·03	4	—	·03	2	—	·02	1	—	·01	—	—	—	—	—	—
10	4	—	·03	4	—	·04	1	1	·01	1	—	·01	—	—	—	—	—	—
11	2	—	·01	3	—	·03	—	—	—	1	—	·02	—	—	—	—	—	—
12	1	—	·01	3	—	·03	—	—	—	—	—	—	—	—	—	—	—	—
13	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	112	4	·57	148	6	·94	105	3	·82	42	—	·42	13	—	·17	7	—	·14

(lx) Cases treated with T. B. F. (included in above).

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	16			18			11			8			1			1		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	11	—	·05	12	—	·07	7	—	·05	5	—	·04	1	—	·01	1	—	·02
1	15	—	·07	17	—	·10	10	1	·07	8	—	·07	1	—	·01	1	—	·02
2	8	1	·04	14	—	·08	8	—	·06	4	—	·04	—	—	—	—	—	—
3	5	—	·03	8	—	·05	6	—	·05	3	—	·03	—	—	—	—	—	—
4	1	—	·01	3	—	·02	1	—	·01	2	—	·02	—	—	—	—	—	—
5	1	—	·01	1	—	·01	—	—	—	1	—	·01	—	—	—	—	—	—
Total	41	1	·21	55	—	·33	32	1	·24	23	—	·21	2	—	·02	2	—	·04

ADIRONDACK. "Special" (*continued*).

Cases treated with Tuberculin.

(lxi) MALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	45			46			35			29			12			9		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	30	—	·13	31	—	·17	23	—	·15	19	1	·17	8	—	·09	6	—	·11
1	42	3	·20	41	—	·24	34	1	·23	25	2	·23	11	2	·13	7	—	·14
2	32	2	·16	37	5	·22	20	3	·15	17	—	·17	7	—	·09	5	2	·10
3	22	1	·11	20	—	·12	10	—	·08	10	1	·10	5	—	·07	3	—	·07
4	14	—	·08	16	1	·10	9	—	·07	6	1	·07	3	—	·04	2	2	·05
5	13	1	·07	15	—	·10	6	1	·05	5	2	·06	2	—	·03	—	—	—
6	9	1	·05	12	2	·08	4	—	·04	1	—	·01	2	—	·03	—	—	—
7	7	—	·04	10	—	·07	2	—	·02	1	—	·01	—	—	—	—	—	—
8	6	—	·04	9	—	·07	1	—	·01	—	—	—	—	—	—	—	—	—
9	3	—	·02	8	—	·07	—	—	—	—	—	—	—	—	—	—	—	—
10	3	—	·02	8	1	·07	—	—	—	—	—	—	—	—	—	—	—	—
11	3	—	·02	5	—	·05	—	—	—	—	—	—	—	—	—	—	—	—
12	3	—	·02	1	1	·01	—	—	—	—	—	—	—	—	—	—	—	—
13	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	188	8	·97	213	10	1·37	109	5	·80	84	7	·82	38	2	·48	23	4	·47

(lxii) Cases treated with T. B. F. (included in above).

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	25			21			23			19			6			6		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	17	—	·08	14	—	·08	15	—	·10	13	—	·11	4	—	·05	4	—	·08
1	23	2	·11	18	—	·10	22	1	·15	18	2	·17	5	1	·06	4	—	·08
2	16	2	·08	15	2	·09	9	1	·07	10	—	·10	2	—	·02	2	1	·04
3	7	—	·04	4	—	·02	1	—	·01	3	1	·03	—	—	—	1	—	·02
4	1	—	·00	—	—	—	—	—	—	—	—	—	—	—	—	1	1	·02
Total	64	4	·31	51	2	·29	47	2	·33	44	3	·41	11	1	·13	12	2	·24

ADIRONDACK. "Special" (*continued*).

Cases treated with Tuberculin.

(lxiii) FEMALES—INCIPIENT.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	8			25			16			9			4			1		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	5	—	·02	17	—	·08	11	—	·07	6	—	·05	3	—	·03	1	—	·01
1	8	—	·03	24	—	·12	16	1	·10	9	—	·07	3	—	·03	1	—	·02
2	8	—	·04	18	1	·10	11	—	·07	8	—	·07	3	—	·03	—	—	—
3	6	—	·03	8	—	·04	9	—	·06	5	—	·04	1	—	·01	—	—	—
4	5	—	·02	2	—	·01	5	—	·04	3	—	·03	—	—	—	—	—	—
5	5	—	·02	2	—	·01	3	—	·02	3	—	·03	—	—	—	—	—	—
6	3	—	·01	1	—	·01	—	—	—	3	—	·03	—	—	—	—	—	—
7	3	—	·02	1	—	·01	—	—	—	2	—	·02	—	—	—	—	—	—
8	3	—	·02	—	—	—	—	—	—	2	—	·02	—	—	—	—	—	—
9	3	—	·02	—	—	—	—	—	—	2	—	·02	—	—	—	—	—	—
10	3	—	·02	—	—	—	—	—	—	2	1	·02	—	—	—	—	—	—
11	3	—	·02	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
12	3	—	·02	—	—	—	—	—	—	1	—	·01	—	—	—	—	—	—
13	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	59	—	·30	73	1	·38	55	1	·36	47	1	·42	10	—	·10	2	—	·03

(lxiv) Cases treated with T. B. F. (included in above).

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	1			19			8			4			2			1		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	1	—	·00	13	—	·06	5	—	·03	3	—	·02	1	—	·01	1	—	·01
1	1	—	·00	18	—	·09	8	1	·05	4	—	·03	2	—	·02	1	—	·02
2	1	—	·01	13	—	·07	6	—	·04	4	—	·03	2	—	·02	—	—	—
3	—	—	—	5	—	·03	4	—	·03	2	—	·02	1	—	·01	—	—	—
Total	3	—	·01	49	—	·25	23	1	·15	13	—	·10	6	—	·06	2	—	·03

ADIRONDACK. "Special" (*continued*).

Cases treated with Tuberculin.

(lxv) FEMALES—ADVANCED.

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	25			41			35			18			9			7		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	17	—	·07	27	—	·13	23	—	·14	12	—	·09	6	—	·06	5	1	·07
1	24	1	·10	39	1	·20	33	1	·21	17	—	·14	9	—	·09	5	—	·08
2	22	2	·10	31	5	·16	22	3	·14	14	3	·12	6	—	·06	3	1	·05
3	14	3	·06	18	1	·10	13	—	·09	8	—	·07	5	—	·05	2	—	·03
4	9	1	·05	14	—	·08	4	1	·03	5	—	·05	3	—	·03	1	—	·02
5	5	—	·03	8	1	·05	1	—	·01	3	—	·03	2	—	·02	—	—	—
6	3	—	·01	5	—	·03	1	—	·01	2	—	·02	2	—	·02	—	—	—
7	1	—	·01	5	—	·03	1	—	·01	2	—	·02	2	1	·03	—	—	—
8	—	—	—	5	1	·03	—	—	—	2	—	·02	1	—	·01	—	—	—
9	—	—	—	4	—	·03	—	—	—	—	—	—	1	—	·01	—	—	—
10	—	—	—	4	—	·03	—	—	—	—	—	—	1	—	·02	—	—	—
11	—	—	—	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—
12	—	—	—	2	—	·02	—	—	—	—	—	—	—	—	—	—	—	—
13	—	—	—	1	—	·01	—	—	—	—	—	—	—	—	—	—	—	—
Total	95	7	·43	165	9	·92	98	5	·64	65	3	·56	38	1	·40	16	2	·25

(lxvi) Cases treated with T. B. F. (included in above).

Age at Admission	Under 23			23—27			28—32			33—37			38—42			43 and over		
Total No. Admitted	13			20			28			7			5			5		
No. of years since Admission	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths	Exposed to Risk	Actual No. of Deaths	Expected No. of Deaths
0	9	—	·04	13	—	·06	19	—	·11	5	—	·04	3	—	·03	3	—	·04
1	12	1	·05	18	1	·09	27	1	·17	7	—	·06	5	—	·05	4	1	·06
2	10	1	·04	11	1	·06	18	2	·12	6	—	·05	3	—	·03	1	—	·02
3	4	1	·02	4	1	·02	10	—	·07	3	—	·03	2	—	·02	1	—	·02
4	1	—	·01	—	—	—	1	1	·01	—	—	—	—	—	—	—	—	—
Total	36	3	·16	46	3	·23	75	4	·48	21	—	·18	13	—	·13	9	1	·14

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